

1938

OCTOBER 15

NUMBER 1

VOLUME XXX

UNIVERSITY OF MINNESOTA

Medical Bulletin

**OFFICIAL PUBLICATION OF THE
UNIVERSITY OF MINNESOTA HOSPITALS
THE MINNESOTA MEDICAL FOUNDATION
AND THE MINNESOTA MEDICAL ALUMNI
ASSOCIATION**

IN THIS ISSUE:

Dean's Address

Annual Report

11/11/38

University of Minnesota Medical Bulletin

Editor

W. ALBERT SULLIVAN, JR., M.D.

Associate Editors

E. B. BROWN, Ph.D.

VIRGIL J. P. LUNDQUIST, M.D.

WILLIAM F. SCHERER, M.D.

WESLEY W. SPINK, M.D.

EUGENE L. STAPLES

ALAN THAL, M.D.

ROBERT A. ULSTROM, M.D.

LEE WATTENBERG, M.D.

Copy Editor

ELLEN Y. SIEGELMAN

University of Minnesota Medical School

J. L. MORRILL, *President, University of Minnesota*

ROBERT B. HOWARD, M.D., *Dean, College of Medical Sciences*

N. L. GAULT, JR., M.D., *Assistant Dean*

H. MEAD CAVERT, M.D., *Assistant Dean*

University Hospitals

RAY M. AMBERG, *Director*

Minnesota Medical Foundation

HERMAN E. DRILL, M.D., *President*

ARNOLD LAZAROW, M.D., *Vice-President*

N. L. GAULT, JR., M.D., *Secretary-Treasurer*

Minnesota Medical Alumni Association

VIRGIL J. P. LUNDQUIST, M.D., *President*

SHELDON M. LAGAARD, M.D., *First Vice-President*

CHARLES J. BECK, M.D., *Second Vice-President*

NEIL M. PALM, M.D., *Secretary*

JAMES C. MANKEY, M.D., *Treasurer*

UNIVERSITY OF MINNESOTA

Medical Bulletin

OFFICIAL PUBLICATION OF THE UNIVERSITY OF MINNESOTA HOSPITALS, MINNESOTA MEDICAL FOUNDATION, AND MINNESOTA MEDICAL ALUMNI ASSOCIATION

VOLUME XXX

October 15, 1958

NUMBER 1

CONTENTS

DEAN'S ADDRESS

Medicine: Some Prospects, Challenges, and Opportunities

BY ROBERT B. HOWARD, M.D. 2

ANNUAL REPORT

University of Minnesota Hospitals, 1957-1958

BY RAY M. AMBERG, M.D. 8

IN MEMORIAM 40

MEDICAL SCHOOL FACULTY 40

Published semi-monthly from October 15 to June 15 at Minneapolis, Minnesota

U of M Bindery JUN 10 '60 "M"

Dean's Address

Medicine: Some Prospects, Challenges, and Opportunities*

Robert B. Howard, M.D.†

The eminent British historian Arnold Toynbee has described the known civilizations of the world in terms of challenge and response. Those civilizations rising to the greatest heights, those marked by the most significant social, political, esthetic, and technological accomplishments are those which, in Toynbee's view, received the stimulus of a challenge of optimum severity. Those civilizations confronted by challenges too severe, such as an Arctic environment, failed to flourish, since mere survival under such circumstances requires all the energies and talents of the populace, leaving little or none for creative activity.

The effect of a too severe challenge on a civilization could be predicted with reasonable ease. Less predictable perhaps is the opposite side of the Toynbee coin: Those civilizations called upon to meet challenges of less than optimal degree also were characterized by lack of accomplishment. In support of this aspect of his thesis, Toynbee presents numerous examples of "soft" environments failing to spawn significant, productive civilizations.

Toynbee's view of history has, of course, been questioned on many grounds, most prominent among them, perhaps, that it represents a far too sweeping generalization and simplification of a most complex matter. Time and future historians will have to confirm or deny the Toynbee thesis. That it has at least a measure of validity, however, is suggested by our own observations of human behavior, both individual and group. Certainly all of us have seen the challenge-response pattern in our friends, in members of our families, in ourselves. We have noted how frequently in human endeavors the magnitude of the effort evoked seems directly related to the intensity of the challenge presented.

It is our purpose today to examine the challenge, or more correctly, the challenges, that medicine presents to us as students,

*This address was delivered as the Minneapolis Medical Foundation Lecture on September 29, 1958.

†Dean, University of Minnesota Medical School

THE MEDICAL BULLETIN

teachers, practitioners, researchers—challenges which can be translated into opportunities and future prospects. Perhaps such an examination will help us to perceive them more clearly, to act upon them, to be stimulated by them.

Those of you for whom today represents the beginning of your formal medical education are about to meet a challenge probably much greater than any you have faced to date, and it is you whom I want to address particularly, although I hope that my thoughts may have some interest for the others of you as well.

First of all, let me express the hope that you will not look upon the challenge merely in terms of "Can I pass Gross Anatomy?" or "What class rank can I attain?" Such an approach would be a short-sighted one for yourselves, an unhappy one for your patients, and a calamitous one for the future of medicine. Your real challenge during the next four years will be to seize every opportunity offered to you to expand and strengthen your knowledge of the fundamentals of medicine.

You will find that in medical school the emphasis is on *learning* rather than on *teaching*, that you will be presented with almost unlimited opportunities to *learn*, and that you must take advantage of these to the greatest extent possible if you are to fulfill the promise implicit in your being accepted into medical school.

The process of maturing will itself constitute a challenge for you. It will be assumed by the faculty that your outlook is adult, and you will be expected to assume from now on a measure of responsibility for your own education far greater than has been the case so far. In few instances will it suffice simply to know the lecture notes or to have in mind the facts presented in a given text. Rather you will be held responsible for a basic understanding of a subject surpassing factual knowledge alone. You will be held responsible, too, for a standard of personal conduct and appearance becoming a professional person. Your complete, unqualified integrity—undoubtedly the physician's single most important and most essential characteristic—will be assumed from the outset. Most sincerely we hope we shall never have cause to question it.

You will be disappointed in many of the things you will *not* learn during your years in medical school. Knowledge in the medical sciences today is extensive and expanding at a rapid rate. To expect you to be finished physicians upon graduations would be unrealistic indeed. Our objectives instead are to give you a sound background in the basic medical sciences, something that few acquire after

graduation if they failed to do so during undergraduate years, plus the most thorough knowledge possible of how one approaches a problem in clinical medicine—how information is acquired and synthesized, how a diagnosis is reached, how rational therapy is planned. No attempt will be made to assure your seeing an instance of every known disease or to have you see the “common diseases” in large numbers. To study one patient carefully under competent supervision is worth infinitely more educationally, your faculty believes, than to observe a dozen patients in haphazard fashion.

You will find, too, that we will not spend large amounts of time instructing you in minor technical procedures. Some of you will feel at a disadvantage as you compare your skills of this type with those of graduates of other schools when you begin your internships. I assure you that your good fundamental background will, in the long run, more than make up for any apparent deficiency.

As you can see, our fundamental approach to medical education is based on the concept that it is a lifelong process and that you will continue to be students throughout your professional lives. Certain things we will do our very best to give you during your four years with us; certain other things we will expect you to learn during periods of postgraduate study and training—formal, informal, or both. The M.D. degree, so keenly anticipated at this point in your lives, must ultimately be looked upon as your license to study for the next 40 years.

You will find that your teachers feel very strongly their responsibility to you as students of today, but you will learn, too, that in equal measure they feel a responsibility to the student of medicine of the future. To seek new truths, to explore the unexplored, to refine and expand man's knowledge of the human mind and body in health and disease—all of these are goals to which members of your faculty aspire. These are no mere collection of high-sounding platitudes, nor do they represent duties and obligations which pre-empt faculty time that would otherwise be available for teaching, as is sometimes wrongly implied by those who fail to understand the nature of medical education. Rather these objectives constitute an *integral part* of medical education. Without the investigative activity that you will find so characteristic of your school, without this orientation toward the future—combined, of course, with thoughtful concern for the present and proper regard for the past—medicine would indeed be dull and sterile. A trade rather than a profession, it would have little appeal for the imaginative mind.

It will be your challenge to view medicine with imagination and foresight, to perceive the relation between the research you will see going on about you and the medicine you will practice following your years of formal training. Your most effective response to this challenge might well be personal participation in a research project during some phase of your formal education. Opportunities for such participation will be available to you during the coming years. Whether your ultimate goal is the practice of general medicine, specialty practice, or teaching and research, you will find participation in a research project, even if for only a brief period, a richly rewarding experience.

The challenges of medical school will, of course, pale in comparison with those you will meet after you enter practice. The responsibility for the care of a patient is awesome indeed. The knowledge that a life may depend upon your decision or action is truly sobering, an experience quite unparalleled in other human endeavor and a challenge that will bring out the best in the physician of real merit. Yours will be the challenge of putting to the best possible use the fundamental knowledge you acquired in school, of expanding that knowledge, and of blending with it your accumulated experience in such a manner as to bring maximum benefit to your patients.

I have spoken so far of challenges to you as students. Certainly I would be remiss if I failed to point out some of the parallel challenges that face us as members of your faculty. First of all, naturally, is the challenge presented by the young, inquiring minds of a group of carefully selected students such as you. We must stimulate you to do your very best. More than teaching you, more than making you learn, we must make you *want* to learn. The extent to which we succeed in this will be the measure of our response to this challenge.

Despite our own special areas of interest, we must present to you a unified concept of the clinical approach to medicine, an approach which views the patient as a person, not as a repository for diseased organs. We must instill in you an appreciation for the spirit of inquiry, to which I referred earlier. It is our responsibility to make you see that teaching and research are so inseparably linked in a good medical school that withdrawal of support of either one would produce the ultimate withering of the other.

It is incumbent upon us to assure ourselves that the four short years you spend with us are invested in the most profitable manner possible. We must be alert to the danger inherent in following a certain procedure simply because we have "always done it that way." Tradition can be used to serve our ends, but it can also be a deadly

trap. Or to change the metaphor, in listening to the voice of the past, we must accord it careful hearing but not uncritical obeisance. Our lectures, our teaching methods and materials, the curriculum itself deserve frequent review and critical scrutiny. We must not hesitate to eliminate outdated material or to revise courses when circumstances warrant. "Are we doing the best possible job of teaching?" must be a constantly recurring question for all of us.

As members of your faculty, we must strive at all times to establish and maintain the proper relationship of the student to the hospital itself and to members of the staff. In 1912, at the dedication of the Elliott wing of the University Hospitals, Dr. Charles Lyman Greene, Chief of the Medical Clinic, expressed a thought concerning this matter which has equal pertinence today. "It was manifest to us," said Dr. Greene, "as to Flexner, that the student must be a part of the institution and not simply a visitor on sufferance. We must endeavor, therefore, to bring him duly into the closest possible contact with cases and insist that he work out, under proper supervision and control, those problems which belong to the field of actual practice."

Concomitantly, we must fairly and accurately appraise the quality of the student's work. We must recognize the student of outstanding talent and do whatever we can to prepare him for his ultimate role of leadership in medicine. We must be equally alert to the student who does not measure up to our minimum standard, for here our responsibility is not only to our school, ourselves, and the student, but to the community at large, whose members might well suffer at the hands of an inept, insufficiently skilled physician.

I have spoken thus far principally of challenges. What of the prospects and opportunities? I judge that you already see them with reasonable clarity. Your prospects for "success"—however you may wish to measure or define it—are excellent. Like Pip in the Charles Dickens classic, you are people of *Great Expectations*.

Of even more importance, though, are your opportunities. In responding to the challenges outlined, you will be presented with countless opportunities. The opportunity to know and to understand at least something of the structure and function of that most wonderful of Nature's creations, the human body, is an opportunity given to relatively few. It must be respected and cherished and put to use for the benefit of those who place their trust in you.

Beyond this opportunity of knowing that which others know, of understanding that which others understand, lies the opportunity of opening a door in the house of knowledge, allowing light to fall in a

THE MEDICAL BULLETIN

room previously blanketed by the darkness of ignorance. The discovery of a truth, even a truth which appears relatively minor in its implications, brings an incomparable thrill.

The concept of service has probably been, for most or all of you, an important motivation for the study of medicine. The opportunity to serve your fellow man in a time of stress will be yours frequently. Such service reaps a rich harvest of satisfaction, of affection, and of respect.

If you can view medicine as a lifelong adventure, which you are now about to begin; if you serve it with all of your skill and ability; if you approach it with all of the imaginativeness at your command; then the pleasures you will derive from it will be limitless, the satisfaction unbounded. Your life will be constantly exciting, never humdrum; and your responsibilities, though heavy, will never be burdensome.

The challenges, the prospects, the opportunities are all yours. Respond to the challenges; rejoice at the prospects; and make the most of the opportunities!



Annual Report

University of Minnesota Hospitals,

July 1, 1957 — June 30, 1958

Ray M. Amberg, Ph.C.*

The University of Minnesota Hospitals was established to furnish a means for the University of Minnesota to train students in the multiple fields of medical care. Training is given in the Hospitals under the direct supervision and guidance of a competent staff made up of a full time and part time faculty. The staff is responsible to the State through the University for both the instruction of the students and the care of the patients. This arrangement has proved satisfactory not only in the training of students but also as an economical means for the State to care for many of its indigent sick.

The University of Minnesota Hospitals provides many different medical services within its many units and makes available its facilities and services which enable physicians to provide the best possible care consistent with progress in medical science.

University of Minnesota Hospitals Admission Policy

In applying for admission to the Hospitals, the patient must be referred by his family physician or by a physician in his local community. This rule avoids the criticism that the Hospitals and its clinics are taking patients who should be seen by private practitioners. This same policy applies to patients admitted to the Variety Club Heart Hospital or any other unit of the Hospitals.

Patients are classified according to their ability to pay as County, Per Diem, Teaching and Research, Sixty Fund, Eustis, Rehabilitation, Multiple Sclerosis, Muscular Dystrophy, Private, or, in the case of the Heart Hospital, the Variety Club of the Northwest Fund. No distinction is made among these classes in treatment or privileges.

COUNTY patients are those who are totally unable to pay. Their expenses are shared equally by their county and the state. When applying for either outpatient or hospital care, each County patient must present county papers filled in by both his physician and his county commissioner (or his representative).

PER DIEM patients are those who cannot afford to pay for the

*Director, University of Minnesota Hospitals

THE MEDICAL BULLETIN

services of both a private physician and a private hospital. When applying for either outpatient or hospital care, these patients must present a special form filled in by themselves and their family physicians. They are required to pay their clinic or hospital expenses only, no charge being made for professional services of the staff. From the standpoint of money received by the Hospitals, there is no difference between a county patient and a per diem patient.

TEACHING AND RESEARCH patients are primarily destitute unmarried obstetrical patients who are unable to avail themselves of county papers.

THE SIXTY FUND is a special grant from the state legislature which is used to hospitalize indigent psychiatric patients for treatment, teaching and research purposes.

THE EUSTIS FUND was set up by William Henry Eustis to care for indigent children under sixteen years of age.

THE REHABILITATION FUND is a fund provided by the Legislature for the use of the Hospitals, through the Department of Rehabilitation and Physical Medicine, to aid in the physical rehabilitation of patients. Referral by a physician is required.

THE MULTIPLE SCLEROSIS DIAGNOSTIC FUND of \$15,000 was provided for each year of the past biennium to assist in financing the multiple sclerosis clinic. Referral by a physician is required.

THE MUSCULAR DYSTROPHY FUND consists of income from the Muscular Dystrophy Association of Minnesota to assist in the diagnosis and treatment of people afflicted with muscular dystrophy. Patients must be referred by a physician.

PRIVATE patients, limited in number, are admitted as a convenience to the senior staff. They are referred by other physicians in the state and are afforded the same treatment and privileges as are private patients in any private hospital.

THE VARIETY CLUB OF THE NORTHWEST FUND is a special annual gift from the Variety Club to assist in the care of patients from any of the communities in the Club area which includes Minnesota, North Dakota, South Dakota, parts of Wisconsin or any other area indicated by the Club. Patients may be admitted for care on this fund on the usual recommendation of a physician. The Variety Club itself may at times indicate and request service for certain patients in which it has a special interest, care to be paid for through this fund. No charge is made for the professional services of the staff—only for clinic or hospital expenses.

STUDENT HEALTH SERVICE patients are not considered Hospitals

patients even though a Hospitals intern is assigned to this service. The Student Health Service has its hospital infirmary on the fourth floor of the North wing of the University Hospitals but is not a part of the University Hospitals; it is a service institution maintained by the University with a director, staff, and budget of its own. The new Student Health Service, located on Church Street west of the Hospitals, provides outpatient care only.

Inpatient Department

The number of patients admitted during the fiscal year 1956-57 was 14,953, and during the year 1957-58 the number was 15,879. The total number of days of hospital treatment aggregated 185,434 for 1956-57 and 193,934 for 1957-58, an increase of 8,500 patient days. The average stay in the Hospitals was 12.4 days in 1956-57 and 12.2 in 1957-58.

Deaths for the year numbered 649. Of these, 120 occurred within 48 hours after admission; 145 deaths occurred in the Heart Hospital. Autopsies for the year 1956-57 numbered 574, overall rate of 85.1%; in 1957-58, there were 526 autopsies, an overall rate of 85.67%.

Dr. Arthur N. Springall, Assistant Secretary, Council on Medical Education and Hospitals, American Medical Association, in his letter of June 30, 1958, wrote as follows:

"According to information submitted, the University of Minnesota Hospitals had an autopsy rate on hospital deaths of 86% for the last reporting period. On this basis, the hospital will be included in the list of non-federal hospitals approved by the Council on Medical Education and Hospitals for the training of interns which had the highest autopsy rates for this period. This list will be published in the Internship and Residency Number of The Journal, A.M.A., issue of October 4, 1958.

The efforts of the hospital staff and the administration in establishing this record are highly commended. On behalf of the Council, I wish to extend our congratulations on your achievement."

The daily cost of operating the Inpatient Department was \$29.83 in 1956-57 and \$33.36 in 1957-58, an increase of \$3.53 per patient day. Surgical operations performed during 1957-58 totaled 10,417 as against 9,922 during 1956-57.

The Psychopathic Department of the Hospitals admitted 694 patients during 1957-58 and 610 in 1956-57. In the Psychopathic Hospital the total number of patient days of hospital care was 20,368 in 1957-58 as against 17,550 in 1956-57.

The waiting list of the Hospitals showed 140 patients on July 1.

THE MEDICAL BULLETIN

Outpatient Department

The number of new patient visits in 1956-57 was 20,377, and in 1957-58 it was 20,721. Total patient visits for 1956-57 were 119,683, and for 1957-58, the number was 125,174, an increase of 5,491 visits. The cost of operating the Outpatient Department was \$5.98 in 1956-57, and in 1957-58, \$6.38, an increase of 40 cents per patient visit.

The X-Ray Department reported 71,272 procedures for the year 1957-58 as against 79,050 for the year 1956-57.

The Department of X-Ray Therapy gave 15,296 deep therapy treatments in 1957-58 as against 13,507 in 1956-57. There were 9,849 treatments given on the cobalt machines in 1957-58 and 6,993 in 1956-57. The number of superficial therapy treatments given in 1957-58 was 687 as against 939 in 1956-57. There were 201 radium treatments given in 1957-58, and 223 in 1956-57. The total number of strontium (beta ray) treatments given in 1957-58 was 57, while in 1956-57 the number was 52. In the isotope laboratory (radioiodine) 741 tracer studies and treatments were given in 1957-58 as against 887 in 1956-57, the total number of millicuries used in 1957-58 being 525.2 as against 785 in 1956-57. There were 64 phosphorus treatments given in 1957-58, and 45 in 1956-57, the total number of millicuries used for treatment in 1957-58 being 175.8 as against 150.45 during 1956-57.

In 1956-57 one patient was treated with radioactive gold and 100 millicuries used; during 1957-58 no patients were treated by this means. In 1957-58, 107 radioiodine human serum albumin blood volume studies were made as against 19 in 1956-57. There were 59 radioactive chromium red cell survival studies in 1957-58, and 41 in 1956-57. In 1957-58 54 Phillips contact therapy treatments were given as against 77 in 1956-57. The past year also showed 81 $\text{Co}^{60} + \text{B}_{12}$ studies, 2 $\text{Co}^{60} + \text{B}_{12}$ with intrinsic factor, and 629 conversion ratio studies.

The number of prescriptions filled was 199,020 in 1957-58 as against 192,154 in 1956-57.

The Hospital laboratory made 691,118 determinations during the year 1957-58 as against 558,055 in 1956-57. The method of reporting urinalysis was changed this year, and therefore the figure for the year 1956-57 varies from that shown for this period in the previous report. (Note explanation in the laboratory report.)

Masonic Memorial Hospital

This hospital, built with funds raised by the Masons of Minnesota

and their affiliated organizations, was completed in September, 1958, and will open for patients about October 15th. The gift specifies that the money is to be used for a facility to provide care for patients suffering with advanced cancer and equally serious diseases for which there is no known cure. The admission of patients will be governed by the present admission policies of the University of Minnesota Hospitals. The building is presently connected by an underground passage to Powell Hall, but when the Library is finished, the Masonic Memorial Hospital will connect by tunnel with the hospital proper.

Variety Club Heart Hospital

The fifth floor is nearly completed and will be ready for occupancy by October 31. This area, built with money given by the Variety Club of the Northwest, will provide additional facilities for research on conditions related to heart disease.

Remodeling

The \$400,000 provided by the 1957 Legislature has been spent to remodel one section of the Elliott wing into an intensive care unit, which opened to receive patients the first week of October. A second project—the remodeling of the first, third, and fourth floors of the Elliott wing—will be finished this coming year.

Hospital funds alone cannot provide for all the needs of an institution, satisfying the technical demands and the demands of day-to-day operation. Since hospitals vary in their requirements, and the public's desire to serve varies with individuals' ability and interest, no pattern for requests can be set.

However, one paramount need of a hospital is an understanding of what it is striving to accomplish. To do this it must have the assistance of many people in addition to the paid staff, people who wish to give their time or financial support. The continued interest of devoted friends contributes immeasurably to telling the hospital's story.

The University of Minnesota Hospitals is fortunate in having individuals and groups with this interest and devotion. It is fitting that we thank the Masons of Minnesota and their affiliated organizations for their liberal donations which made the Masonic Memorial Hospital possible; and the Variety Club of the Northwest for funds for

THE MEDICAL BULLETIN

the construction of the fifth floor of the Variety Club Heart Hospital, and for their continued generosity in providing funds for patient care.

We also wish to thank the Variety Club Auxiliary for its support to the Variety Club Heart Hospital; the University Hospitals Auxiliary—along with the other sections of the Faculty Women's Club—for generous efforts on behalf of our patients; the State Division of Social Welfare and the County Welfare Boards for their assistance, the various nursing homes for their cooperation; the Traffic Club for the gifts, entertainment, and cheer provided for our patients year after year at Christmas time; the Crippled Child Relief; the Minnesota Society for Crippled Children and Disabled Adults; the Sunshine Society; the Camp Fire Girls and the Girl Scouts; the Needlework Guild; the Junior League; the Minneapolis Council of Churches; the Minneapolis and Hennepin County Chapter of the American Red Cross; the Volunteer Service Bureau; and many other organizations and individuals who have contributed to our patients' welfare, including, of course, the chaplains who minister so faithfully to the spiritual needs of our patients.

We of the Hospitals wish to express our appreciation to our corps of volunteer workers who have given their time in performing services for our patients as well as assisting our staff. We wish to thank the many people who have contributed to service and research funds during the year.

The Administration also desires to express its gratitude to the members of the professional and service staffs for their loyalty, helpfulness, and considerate care of patients.

THE MEDICAL BULLETIN

University of Minnesota Hospitals Statement of Income & Expenditures June 30, 1958

INCOME

| | | |
|---|-----------------|-----------------|
| County & State Reimbursement | \$ 2,564,966.59 | |
| Pay Bed | 2,837,297.73 | |
| Minnesota Hospital & Home for Crippled Children | 75,000.00 | |
| Psychopathic Hospital | 516,468.00 | |
| Child Psychiatry | 201,715.00 | |
| Rehabilitation | 313,211.00 | |
| Out-Patient Department | 250,419.96 | |
| Student Health Service | 153,079.54 | |
| Variety Club Heart Hospital | 65,000.00 | |
| University Funds | 218,679.00 | |
| Other Funds | 44,086.04 | |
| Multiple Sclerosis | 26,882.00 | \$ 7,266,804.86 |

EXPENDITURES

| | | |
|--------------------|-----------------|-----------------|
| Salaries & Wages | \$ 4,685,361.73 | |
| Supplies & Expense | 2,583,006.96 | \$ 7,268,368.69 |

OVERDRAFT

\$ 1,563.83

COST OF OPERATION

| Year | Out-Patient Dept. | In-Patient Dept. | Out-Patient Visit | Hospital Day |
|---------|-------------------|------------------|-------------------|--------------|
| 1952-53 | \$ 452,797.47 | \$ 3,629,971.84 | \$ 4.67 | \$ 22.75 |
| 1953-54 | 489,676.01 | 3,803,470.24 | 4.84 | 24.36 |
| 1954-55 | 580,225.05 | 4,241,477.74 | 5.33 | 24.47 |
| 1955-56 | 672,898.91 | 5,304,848.95 | 5.78 | 28.18 |
| 1956-57 | 715,963.52 | 5,616,192.30 | 5.98 | 29.83 |
| 1957-58 | 798,817.88 | 6,469,550.81 | 6.38 | 33.36 |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report In-Patient Department

| | 1956-57 | 1957-58 | | 1956-57 | 1957-58 |
|--|---------|---------|---|---------|---------|
| <u>Total Patients Admitted</u> | | | <u>Average Days per Patient</u> | | |
| County (A) | 4,114 | 4,027 | County (A) | 15.5 | 18 |
| Pay & Per Diem (B,D,C) | 8,295 | 8,654 | Pay & Per Diem (B,D,C) | 10.9 | 9.8 |
| Student Health Service | 1,361 | 1,920 | Student Health Service | 3.3 | 3.4 |
| Psychiatry | 261 | 315 | Psychiatry | 29.8 | 36.2 |
| Psychiatry (Pay & Per Diem) | 349 | 379 | Psychiatry (Pay & Per Diem) | 25.3 | 23.6 |
| Child Psychiatry | 62 | 92 | Child Psychiatry | 30.8 | 38 |
| Child Psychiatry | | | Child Psychiatry | | |
| (Pay & Per Diem) | 62 | 88 | (Pay & Per Diem) | 14.6 | 16.1 |
| Free | 248 | 252 | Free | 6.6 | 6.3 |
| Eustis | 195 | 135 | Eustis | 13.5 | 12.8 |
| Variety Club Fund | 6 | 17 | Variety Club Fund | 18.2 | 20.7 |
| Totals | 14,953 | 15,879 | | | |
| <u>Total Patients Treated (Discharged)</u> | | | <u>Average Length of Stay per Patient</u> | | |
| | | | | 12.4 | 12.2 |
| | | | <u>Daily Average No. Patients</u> | | |
| County (A) | 4,633 | 4,576 | County (A) | 196.4 | 199.6 |
| Pay & Per Diem (B,D,C) | 7,750 | 7,976 | Pay & Per Diem (B,D,C) | 230.6 | 233.9 |
| Student Health Service | 1,355 | 1,910 | Student Health Service | 12.2 | 18.3 |
| Psychiatry | 319 | 387 | Psychiatry | 26.1 | 31.2 |
| Psychiatry (Pay & Per Diem) | 318 | 319 | Psychiatry (Pay & Per Diem) | 22 | 24.5 |
| Child Psychiatry | 68 | 105 | Child Psychiatry | 5.7 | 9.6 |
| Child Psychiatry | | | Child Psychiatry | | |
| (Pay & Per Diem) | 59 | 83 | (Pay & Per Diem) | 2.4 | 3.8 |
| Free | 248 | 255 | Free | 4.5 | 4.3 |
| Eustis | 202 | 156 | Eustis | 7.5 | 4.7 |
| Variety Club Fund | 13 | 30 | Variety Club Fund | .6 | .9 |
| Totals | 14,965 | 15,797 | | | |
| <u>Total Days Hospital Care</u> | | | <u>Daily Average Census for Hospital</u> | | |
| | | | | 508 | 531.32 |
| County (A) | 71,707 | 72,857 | | | |
| Pay & Per Diem (B,D,C) | 84,155 | 85,396 | | | |
| Student Health Service | 4,455 | 6,687 | | | |
| Psychiatry | 9,509 | 11,414 | | | |
| Psychiatry (Pay & Per Diem) | 8,041 | 8,954 | | | |
| Child Psychiatry | 2,094 | 3,511 | | | |
| Child Psychiatry | | | | | |
| (Pay & Per Diem) | 863 | 1,423 | | | |
| Free | 1,644 | 1,600 | | | |
| Eustis | 2,729 | 1,740 | | | |
| Variety Club Fund | 237 | 352 | | | |
| Totals | 185,434 | 193,934 | | | |

Comparison of Length of Stay

| | 1948-49 | 1949-50 | 1950-51 | 1951-52 | 1952-53 | 1953-54 | 1954-55 | 1955-56 | 1956-57 | 1957-58 |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| General Surgery | 14 | 14 | 14 | 13 | 14 | 14.5 | 15.3 | 14 | 12.6 | 11.8 |
| Urology | 12 | 11 | 12 | 11 | 10 | 9.7 | 10.3 | 10.4 | 9.8 | 10.4 |
| Orthopedics | 28 | 24 | 27 | 25 | 25 | 23.5 | 20.6 | 18.5 | 18.3 | 17.5 |
| Neurosurgery | 13 | 12 | 11 | 11 | 15 | 11.7 | 14.3 | 14.3 | 13.6 | 13.8 |
| Anesthesia | | | | | | | | 1 | 50.3 | 159.1 |
| Rehabilitation | | | | | | | 33.3 | 16.8 | 19.2 | 21.6 |
| Medicine | 17 | 18 | 21 | 21 | 17 | 15.5 | 15.7 | 16.3 | 16.9 | 18.0 |
| Neurology | 14 | 16 | 17 | 16 | 16 | 15 | 13.6 | 15.3 | 16.2 | 17.6 |
| Dermatology | 21 | 21 | 22 | 20 | 22 | 19.3 | 19.9 | 17.9 | 13.7 | 14.9 |
| Psychiatry | 29 | 26 | 34 | 30 | 34 | 34.3 | 46.8 | 36.2 | 27.4 | 28.9 |
| Child Psychiatry | | | | | 19 | 22.3 | 21.1 | 22.3 | 23.3 | 26.2 |
| Ophthalmology | 15 | 12 | 15 | 14 | 19 | 13.5 | 15.4 | 12.6 | 16.3 | 13.6 |
| Otolaryngology | 8 | 8 | 9 | 8 | 7 | 6 | 6.4 | 6.6 | 5 | 4.3 |
| Gynecology | 8 | 11 | 8 | 8 | 9 | 14.3 | 14.3 | 16.6 | 9.8 | 9.3 |
| Obstetrics | 11 | 10 | 9 | 8 | 7 | 6.3 | 6.6 | 6.3 | 6 | 5.8 |
| Newborn Pediatrics | 9 | 9 | 9 | 8 | 8 | 6.6 | 6.3 | 5.9 | 6.8 | 6.2 |
| Pediatrics | 14 | 14 | 16 | 18 | 17 | 16.8 | 15.8 | 15.8 | 14.3 | 14.4 |
| Health Service | 4 | 5 | 4 | 4 | 3 | 3.4 | 3.2 | 3.3 | 3.3 | 3.5 |
| TOTALS | 13.2 | 12.7 | 13 | 14 | 13 | 13.2 | 13.8 | 13.4 | 12.4 | 12.3 |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report In-Patient Department

| SERVICE | ADMISSIONS | | PATIENT DAYS | | AVG. LENGTH STAY | |
|---------------------|------------|------------|--------------|--------------|------------------|---------|
| | 1956-57 | 1957-58 | 1956-57 | 1957-58 | 1956-57 | 1957-58 |
| Surgery, General | 1,936 | 1,973 | 26,491 | 25,086 | 12.6 | 11.8 |
| Neurosurgery | 547 | 535 | 7,113 | 7,740 | 13.6 | 13.8 |
| Orthopedics | 308 | 381 | 5,590 | 6,624 | 18.3 | 17.5 |
| Urology | <u>814</u> | <u>827</u> | <u>8,160</u> | <u>8,488</u> | 9.8 | 10.4 |
| Totals | 3,605 | 3,716 | 47,354 | 47,938 | | |
| Medicine | 2,131 | 2,102 | 32,958 | 34,127 | 16.9 | 18.0 |
| Dermatology | <u>121</u> | <u>125</u> | <u>1,603</u> | <u>1,685</u> | 13.7 | 14.9 |
| Totals | 2,252 | 2,227 | 34,561 | 35,812 | | |
| Psychiatry | 610 | 694 | 17,550 | 20,368 | 27.4 | 28.9 |
| Neurology | 552 | 538 | 8,645 | 8,410 | 16.2 | 17.6 |
| Child Psychiatry | <u>124</u> | <u>180</u> | <u>2,957</u> | <u>4,934</u> | 23.3 | 26.2 |
| Totals | 1,286 | 1,412 | 29,152 | 33,712 | | |
| Ophthalmology | 174 | 164 | 2,941 | 2,266 | 16.3 | 13.6 |
| Otolaryngology | <u>602</u> | <u>613</u> | <u>2,983</u> | <u>2,666</u> | 5.0 | 4.3 |
| Totals | 776 | 777 | 5,924 | 4,932 | | |
| Gynecology | 1,035 | 979 | 10,071 | 9,015 | 9.8 | 9.3 |
| Obstetrics | 953 | 1,071 | 5,757 | 6,177 | 6.0 | 5.8 |
| Newborn, Pediatrics | 839 | 922 | 5,651 | 5,573 | 6.8 | 6.2 |
| Pediatrics, General | 2,506 | 2,515 | 36,057 | 36,417 | 14.3 | 14.4 |
| Health Service | 1,410 | 2,001 | 4,617 | 6,893 | 3.3 | 3.5 |
| Rehabilitation | 284 | 252 | 5,938 | 6,192 | 19.2 | 21.6 |
| Anesthesia | <u>7</u> | <u>7</u> | <u>352</u> | <u>1,273</u> | 50.3 | 159.1 |
| TOTALS | 14,953 | 15,879 | 185,434 | 193,934 | | |

THE MEDICAL BULLETIN

Waiting List July 1, 1958

| SERVICE | 1953-54 | 1954-55 | 1955-56 | 1956-57 | 1957-58 |
|------------------------------|----------|----------|----------|----------|-----------|
| Male Surgery | 21 | 7 | 0 | 2 | 0 |
| Female Surgery | 15 | 13 | 5 | 9 | 3 |
| Neurosurgery | 5 | 0 | 0 | 3 | 0 |
| Plastic Surgery | 1 | 0 | 7 | 13 | 2 |
| Urology | 10 | 22 | 8 | 7 | 7 |
| Orthopedics (Pediatrics) | 5 | 1 | 4 | 5 | 4 |
| Plastic Surgery (Pediatrics) | 1 | 1 | 6 | 5 | 0 |
| Surgery (Pediatrics) | 0 | 0 | 0 | 0 | 0 |
| Urology (Pediatrics) | 0 | 0 | 2 | 1 | 1 |
| Orthopedics | 24 | 23 | 5 | 15 | 12 |
| Medicine | 3 | 1 | 0 | 0 | 1 |
| Medicine (Pediatrics) | 0 | 0 | 0 | 1 | 1 |
| Neurology | 11 | 52 | 41 | 46 | 56 |
| Neurology (Pediatrics) | 0 | 0 | 0 | 0 | 0 |
| Psychiatry (Adult) | 13 | 19 | 2 | 8 | 19 |
| Psychiatry (Pediatrics) | 11 | 7 | 5 | 13 | 20 |
| Dermatology | 7 | 0 | 0 | 0 | 0 |
| Ophthalmology | 0 | 0 | 0 | 0 | 0 |
| Ophthalmology (Pediatrics) | 2 | 0 | 0 | 0 | 0 |
| Physical Medicine (Adult) | <u>3</u> | <u>6</u> | <u>7</u> | <u>2</u> | <u>14</u> |
| TOTALS | 132 | 152 | 92 | 130 | 140 |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report Out-Patient Department

| SERVICE | NEW PATIENTS | | REVISITS | | TOTALS | |
|--------------------------------------|--------------|---------|----------|---------|---------|---------|
| | 1956-57 | 1957-58 | 1956-57 | 1957-58 | 1956-57 | 1957-58 |
| MEDICINE | | | | | | |
| General | 3,097 | 2,987 | 7,709 | 7,755 | 10,806 | 10,742 |
| Allergy | 119 | 87 | 1,027 | 1,017 | 1,146 | 1,104 |
| Arthritis | 167 | 117 | 1,470 | 1,417 | 1,637 | 1,534 |
| Cardiac (Adult) | 508 | 247 | 2,632 | 2,283 | 3,140 | 2,530 |
| CMC (Combined Medical Clinic) | --- | --- | 185 | 85 | 185 | 85 |
| Chest | 101 | 51 | 541 | 606 | 642 | 657 |
| Diabetic | 141 | 136 | 951 | 977 | 1,092 | 1,113 |
| Gastro-intestinal | 63 | 40 | 392 | 328 | 455 | 368 |
| Hematology | 55 | 67 | 829 | 944 | 884 | 1,011 |
| Metabolism | 98 | 63 | 951 | 897 | 1,049 | 960 |
| DERMATOLOGY & SYPHILOLOGY | 480 | 572 | 3,038 | 3,123 | 3,518 | 3,695 |
| NEUROLOGY | | | | | | |
| General | 510 | 498 | 752 | 772 | 1,262 | 1,270 |
| Convulsive Disorder | 1 | 6 | 1,008 | 1,029 | 1,009 | 1,035 |
| Headache | --- | 22 | --- | 26 | --- | 48 |
| Multiple Sclerosis | 20 | 31 | 232 | 294 | 252 | 325 |
| Muscular Dystrophy | 16 | 27 | 77 | 107 | 93 | 134 |
| Parkinson | --- | 2 | 327 | 324 | 327 | 326 |
| PSYCHIATRY | 388 | 382 | 3,503 | 3,400 | 3,891 | 3,782 |
| SURGERY | | | | | | |
| General | 655 | 619 | 3,915 | 3,923 | 4,570 | 4,542 |
| Plastic | 36 | 40 | 393 | 440 | 429 | 480 |
| Proctology | 292 | 374 | 1,052 | 1,102 | 1,344 | 1,476 |
| Tumor | 272 | 226 | 2,704 | 2,463 | 2,976 | 2,689 |
| Orthopedic | 397 | 397 | 1,652 | 2,120 | 2,049 | 2,517 |
| Urology - Female | 162 | 146 | 400 | 387 | 562 | 533 |
| Urology - Tumor | 12 | 17 | 64 | 76 | 76 | 93 |
| Urology - Male | 304 | 300 | 1,187 | 983 | 1,491 | 1,283 |
| Urology - Tumor | 22 | 26 | 224 | 220 | 246 | 246 |
| Neurosurgery | 89 | 119 | 500 | 591 | 589 | 710 |
| EYE | | | | | | |
| General | 770 | 833 | 4,324 | 4,016 | 5,094 | 4,849 |
| Refraction | --- | --- | 847 | 948 | 847 | 948 |
| Squint | --- | --- | 308 | 329 | 308 | 329 |
| EAR, NOSE AND THROAT | 723 | 668 | 3,842 | 2,850 | 4,565 | 3,518 |
| Audiology | 393 | 320 | 484 | 477 | 877 | 797 |
| GYNECOLOGY | | | | | | |
| General | 481 | 493 | 1,575 | 1,235 | 2,056 | 1,728 |
| Gynecology Tumor | 37 | 76 | 1,666 | 1,776 | 1,703 | 1,852 |
| Gynecology Proctology | 5 | 6 | 440 | 200 | 445 | 206 |
| OBSTETRICS | 473 | 510 | 3,209 | 3,810 | 3,682 | 4,320 |
| Night Obstetrics | --- | 11 | 300 | 242 | 300 | 253 |
| PEDIATRICS | | | | | | |
| General | 1,181 | 1,191 | 4,271 | 4,311 | 5,452 | 5,502 |
| Allergy | 1 | --- | 230 | 313 | 231 | 313 |
| Cardiac | 458 | 163 | 1,478 | 1,110 | 1,936 | 1,273 |
| Convulsive Seizure | 11 | 2 | 378 | 350 | 389 | 352 |
| Endocrine | 9 | --- | 182 | 244 | 191 | 244 |
| Peds. Hematology | --- | --- | 31 | 317 | 31 | 317 |
| Child Psychiatry | 591 | 561 | 878 | 867 | 1,469 | 1,428 |
| Peds. Neurology | 63 | 4 | 192 | 300 | 255 | 304 |

(continued)

THE MEDICAL BULLETIN

Comparative Twelve-Months Report Out-Patient Department—Continued

| SERVICE | NEW PATIENTS | | REVISITS | | TOTALS | |
|---------------------------|--------------|---------|----------|---------|---------|---------|
| | 1956-57 | 1957-58 | 1956-57 | 1957-58 | 1956-57 | 1957-58 |
| PEDIATRICS (cont'd) | | | | | | |
| Peds. Renal | 1 | ---- | 134 | 189 | 135 | 189 |
| Speech | 27 | 22 | 155 | 82 | 182 | 104 |
| Well Baby | 6 | 2 | 382 | 351 | 388 | 353 |
| EMERGENCY | 2,944 | 3,092 | 15,360 | 16,022 | 18,304 | 19,114 |
| NUTRITION | 639 | 880 | 591 | 695 | 1,230 | 1,575 |
| DENTAL | 105 | 111 | 2,119 | 2,162 | 2,224 | 2,273 |
| NORTH | 3,059 | 2,968 | 17,297 | 17,763 | 20,356 | 20,731 |
| MISCELLANEOUS | --- | 769 | --- | 3,978 | --- | 4,747 |
| VOCATIONAL REHABILITATION | 395 | 440 | 918 | 1,827 | 1,313 | 2,267 |
| TOTALS | 20,377 | 20,721 | 99,306 | 104,453 | 119,683 | 125,174 |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report North Clinic

| CLINIC ATTENDANCE | NEW PATIENTS | | REVISITS | | TOTALS | |
|----------------------|--------------|---------|----------|---------|---------|---------|
| | 1956-57 | 1957-58 | 1956-57 | 1957-58 | 1956-57 | 1957-58 |
| Medicine | 514 | 472 | 2,991 | 2,906 | 3,505 | 3,378 |
| Neurology | 257 | 206 | 1,206 | 1,040 | 1,463 | 1,246 |
| Dermatology | 7 | 33 | 83 | 126 | 90 | 159 |
| Surgery | 371 | 323 | 3,524 | 3,439 | 3,895 | 3,762 |
| Urology | 137 | 206 | 651 | 939 | 788 | 1,145 |
| Neurosurgery | 304 | 333 | 664 | 633 | 968 | 966 |
| Deep X-Ray | 98 | 175 | 9 | 8 | 107 | 183 |
| Orthopedics | 43 | 66 | 312 | 534 | 355 | 600 |
| Physical Medicine | 65 | 55 | 105 | 75 | 170 | 130 |
| Dental | 4 | 7 | 3 | 13 | 7 | 20 |
| Eye | 6 | 5 | 49 | 8 | 55 | 13 |
| Ear, Nose and Throat | 473 | 291 | 663 | 422 | 1,136 | 713 |
| Obstetrics | 300 | 350 | 2,911 | 3,172 | 3,211 | 3,522 |
| Gynecology | 264 | 240 | 1,926 | 2,141 | 2,190 | 2,381 |
| Pediatrics | 166 | 167 | 1,426 | 1,388 | 1,592 | 1,555 |
| Psychiatry (Child) | 11 | 9 | 4 | 4 | 15 | 13 |
| Psychiatry (Adult) | 39 | 30 | 770 | 915 | 809 | 945 |
| TOTALS | 3,059 | 2,968 | 17,297 | 17,763 | 20,356 | 20,731 |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report X-Ray

| PARTS EXAMINED | 1956-57 | 1957-58 |
|---------------------------------|---------|---------|
| Abdomen | 2,269 | 2,331 |
| Angiography (cerebral) | 286 | 251 |
| Angiocardiogram | 139 | 135 |
| Ankle and Foot | 745 | 995 |
| Aortogram | 63 | 74 |
| Arm, Forearm, Elbow | 597 | 551 |
| Arteriogram | 141 | 59 |
| Bronchogram | 144 | 110 |
| Breast | 1,123 | 323 |
| Chest | 25,876 | 26,215 |
| Cholangiogram | 338 | 370 |
| Cineroentgenogram | 72 | 24 |
| Colon | 4,259 | 2,892 |
| Dacrocystogram | -- | 1 |
| Encephalogram | 278 | 306 |
| Injection of Simus Tract | 12 | 6 |
| Facial Bones | 294 | 314 |
| Gall Bladder | 696 | 707 |
| Heart Catheterization | 355 | 369 |
| Heart | 2,198 | 2,053 |
| Hepatogram | 2 | 1 |
| Hip Nailing | 36 | 30 |
| Hysterosalpingogram | 39 | 34 |
| Kymogram | 61 | 121 |
| Pallidotomy | -- | 30 |
| Pancreatogram | 4 | 7 |
| Pelvis and Hip Joints | 2,543 | 2,232 |
| Pelvimetry | 151 | 115 |
| Pharynx, Larynx | -- | 19 |
| Phlebogram | -- | 7 |
| Placentogram | 4 | 4 |
| Planigram | 271 | 248 |
| Pneumomediastinum | -- | 2 |
| Pneumoperitoneogram | -- | 3 |
| Ribs and Sternum | 170 | 177 |
| Shoulder Girdle | 425 | 407 |
| Sialogram | 2 | 6 |
| Sinuses, Paranasal and Mastoids | 632 | 531 |
| Skull, Orbits, Sella Turcica | 2,396 | 2,465 |
| Small Bowel | 123 | 193 |
| Spine (entire) | 3,194 | 3,349 |
| Myelogram | 222 | 222 |
| Splenogram--Splenoportogram | 3 | 3 |
| Stomach, Duodenum, Esophagus | 5,543 | 4,698 |
| Thigh, Leg, Knee | 1,349 | 1,544 |
| Tube Passing | 23 | 25 |
| Urinary Tract | 825 | 844 |
| Cystogram--Urethrogram | 578 | 572 |
| Urography, Excretion | 1,682 | 1,754 |
| Isolated Kidney | 6 | 3 |
| Urography, Retrograde | 499 | 471 |

(continued)

THE MEDICAL BULLETIN

Comparative Twelve-Months Report X-Ray—Continued

| PARTS EXAMINED | 1956-57 | 1957-58 |
|---------------------------------|---------------|---------------|
| Venogram | 19 | 18 |
| Ventriculogram | 81 | 38 |
| Venacavagram | 6 | 10 |
| Wrist and Hand | <u>843</u> | <u>828</u> |
| TOTAL RADIOGRAPHIC EXAMINATIONS | 61,617 | 59,067 |
| PHOTOFILMOGRAPHY | | |
| Employees | 759 | 587 |
| Admission Cases | <u>2,447</u> | <u>355</u> |
| | 3,206 | 942 |
| FLUOROSCOPY | | |
| Diagnostic | <u>14,227</u> | <u>11,263</u> |
| TOTAL DEPARTMENTAL PROCEDURES | 79,050 | 71,272 |
| PATIENTS | | |
| Cancer Detection Center | 6,796 | 4,997 |
| Hospital | 18,943 | 21,197 |
| Heart Hospital X-Ray | 4,640 | 4,472 |
| Out-Patient Department | 12,828 | 13,869 |
| Urology X-Ray | 1,773 | 1,692 |
| Main Operating Room | 2,635 | 2,789 |
| Out-Patient X-Ray (thru 12/56) | <u>567</u> | <u>---</u> |
| Student Health Service | 1,151* | 1,320* |
| Private | 11,394* | 11,860* |
| Employees | 856* | 1,159* |
| * Included in "Total Patients" | | |
| TOTALS | <u>48,182</u> | <u>49,016</u> |
| RADIOGRAPHIC PROCEDURES | | |
| Heart Hospital X-Ray | 4,939 | 4,750 |
| Urology X-Ray | 2,193 | 2,093 |
| Main Operating Room X-Ray | 2,899 | 2,920 |
| Out-Patient X-Ray (thru 12/56) | <u>729</u> | <u>---</u> |
| Main Department | <u>50,857</u> | <u>49,304</u> |
| TOTALS | 61,617 | 59,067 |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report X-Ray Therapy Department

| TYPE OF TREATMENT | 1956-57 | 1957-58 |
|---|--------------|--------------|
| Deep X-Ray Treatments | | |
| New Patients | 600 | 587 |
| Patients Retreated | <u>166</u> | <u>169</u> |
| Total Number of Patients Treated | 766 | 756 |
| Hennepin County Patients | 82 | 104 |
| Ramsey County Patients | 30 | 30 |
| Patients from Other Counties | <u>196</u> | <u>168</u> |
| Total County Patients | 308 | 302 |
| Out-Patient Treatments | 7,200 | 10,085 |
| House-Patient Treatments | <u>6,307</u> | <u>5,211</u> |
| Total Number of Treatments | 13,507 | 15,296 |
| Average Number of Treatments per Patient | 17.6+ | 21.3+ |
| No. Treatments on 250 Machine | 3,426 | 3,116 |
| No. Treatments on 400 Machine | 3,089 | 2,359 |
| No. Treatments on Canadian Cobalt Machine | 6,287 | 5,876 |
| No. Treatments on Picker Cobalt Machine | 706 | 3,973 |
| Superficial X-Ray Treatments | | |
| 120 KV | 161 | 99 |
| 83 KV (Started June, 1958) | | 8 |
| Out-Patient Treatments | 925 | 663 |
| House-Patient Treatments | <u>14</u> | <u>24</u> |
| Total Number of Treatments | 939 | 687 |
| Phillips Contact Therapy | 77 | 54 |
| Radium | | |
| Total Number of Treatments | 223 | 201 |
| New Patients Treated | 182 | 167 |
| Strontium (Beta Ray) | | |
| Total Number of Treatments | 52 | 57 |
| New Patients Treated | 9 | 10 |
| (continued) | | |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report X-Ray Therapy Department—Continued

| TYPE OF TREATMENT | 1956-57 | 1957-58 |
|--|---------|---------|
| Isotope Laboratory | | |
| Radioiodine | | |
| Total Number Tracer Studies & Treatments | 887 | 741 |
| Number New Patients Given Tracer Study | 631 | 494 |
| Number Patients Given Repeat Tracer Study | 173 | 186 |
| Number Patients (New) Given Treatment | 66 | 50 |
| Number Patients Given Retreatment | 17 | 11 |
| Total Number Millicuries | 785 | 525.2 |
| Phosphorus | | |
| Total Number Treatments | 45 | 64 |
| Number New Patients Given Treatment | 20 | 15 |
| Number Retreatments | 25 | 49 |
| Eye Tumor Diagnosis Studies | 22 | 24 |
| Total Number Millicuries Used for Treatment | 150.45 | 175.8 |
| Total Number Millicuries Used for Studies | 10.75 | 12 |
| Radioactive Gold | | |
| Number of Patients Treated | 1 | 0 |
| Total Number of Millicuries | 100 | 0 |
| RIHSA Blood Volume Studies | 19 | 107 |
| Radioactive Chromium Red Cell & Survival Studies | | |
| Blood Volume Studies | 18 | 36 |
| Survival Studies | 23 | 23 |
| Fe59 Studies | 1 | 0 |
| Cobalt 60 *B12 Studies | | |
| Number of Studies | 71 | 81 |
| Cobalt 60 *B12 with Intrinsic Factor | | |
| Number of Studies | 3 | 2 |
| Conversion Ratio Studies | | |
| Number of Studies | 522 | 629 |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report Hospital Laboratories

| Laboratory | Number of Determinations | |
|--|--------------------------|--------------|
| | 1956-57 | 1957-58 |
| Bacteriology | 26,004 | 30,162 |
| Blood Bank | 186,624 | 291,143 |
| Cancer Detection | 25,162 | 25,709 |
| Chemistry | 65,551 | 73,614 |
| Clerks | 3,843 | 7,097 |
| Dispensary | 53,829 | 60,254 |
| Electrocardiography & Basal Metabolism | 9,207 | 9,640 |
| Electroencephalography | 1,579 | 1,932 |
| Heart Catheterization (Heart Catheterization Cases) | 857 (365) | 720 (368) |
| Heart Hospital | 16,565* | 15,263* |
| Hematology | 94,407 | 98,928 |
| Hematology, Special | 1,518 | 1,391 |
| North Clinic | 8,271 | 7,337 |
| Parasitology | 558 | 815 |
| Serology | 11,394 | 16,260 |
| Tissues | | |
| Specimens | | |
| (Autopsy) | (633) | (648) |
| (Surgical) | (5,188) | (4,801) |
| Blocks | | |
| Autopsy | 15,776 | 12,176 |
| Surgical | 14,796 | 14,670 |
| Cytology | 217 | 318 |
| Special Stains, etc. | 275 | 247 |
| Extra Slides | — | 1,428 |
| Urinalysis | 21,622* | 22,014* |
| TOTALS | 558,055 | 691,118 |
| * Correction has been made for change in method of reporting urinalysis; a complete urinalysis being counted as a single determination under the new system. | | |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report Operating Room

| Service | Major | | Minor | | Totals | |
|---|----------------|----------------|---------|---------|---------|---------|
| | 1956-57 | 1957-58 | 1956-57 | 1957-58 | 1956-57 | 1957-58 |
| DEPARTMENT OF SURGERY | | | | | | |
| General Surgery | 2,211 | 1,956 | 649 | 597 | 2,860 | 2,553 |
| Neurosurgery | 398 | 436 | 186 | 169 | 584 | 605 |
| Urological Surgery | 220 | 199 | 47 | 65 | 267 | 264 |
| Orthopedics | 309 | 338 | 161 | 192 | 470 | 530 |
| Casts | | | 121 | 460 | 121 | 460 |
| DEPARTMENT OF GYNECOLOGY | 244 | 242 | 255 | 274 | 499 | 516 |
| DEPARTMENT OF EAR, NOSE & THROAT | | | | | | |
| Otolaryngology | 371 | 408 | 605 | 590 | 976 | 998 |
| Dentistry | 34 | 56 | 12 | 7 | 46 | 63 |
| DEPARTMENT OF OPHTHALMOLOGY | 235 | 207 | 88 | 98 | 323 | 305 |
| Totals | 4,022 | 3,842 | 2,124 | 2,452 | 6,146 | 6,294 |
| CYSTOSCOPY DEPARTMENT | | | | | | |
| TURs & Op. Procedures | 342 | 324 | | | 342 | 324 |
| Cystoscopies | | | 1,533 | 1,580 | 1,533 | 1,580 |
| Minor Non-Cystoscopies | | | 941 | 1,135 | 941 | 1,135 |
| X-Rays | | 324 | 960 | 1,084 | 960 | 1,084 |
| Totals | 342 | 324 | 3,434 | 3,799 | 3,776 | 4,123 |
| Combined Totals | 4,364 | 4,166 | 5,558 | 6,251 | 9,922 | 10,417 |
| <u>SUMMARY</u> | | | | | | |
| | <u>1956-57</u> | <u>1957-58</u> | | | | |
| Majors | 4,364 | 4,166 | | | | |
| Minors | <u>5,558</u> | <u>6,251</u> | | | | |
| Totals | 9,922 | 10,417 | | | | |

THE MEDICAL BULLETIN

Comparative Twelve-Months Report Pharmacy

| Month | Out-Patient Rx | | Hospital Rx | | Total Rx | |
|-----------|----------------|--------------|---------------|---------------|---------------|---------------|
| | 1956-57 | 1957-58 | 1956-57 | 1957-58 | 1956-57 | 1957-58 |
| July | 4,130 | 4,228 | 11,955 | 11,603 | 16,085 | 15,831 |
| August | 4,290 | 4,604 | 13,084 | 11,625 | 17,374 | 16,229 |
| September | 3,875 | 4,193 | 10,775 | 10,253 | 14,650 | 14,426 |
| October | 4,322 | 4,861 | 11,409 | 11,782 | 15,731 | 16,643 |
| November | 4,423 | 4,301 | 11,857 | 12,122 | 16,280 | 16,423 |
| December | 4,149 | 4,146 | 10,774 | 11,380 | 14,923 | 15,526 |
| January | 4,523 | 4,978 | 11,002 | 12,152 | 15,525 | 17,130 |
| February | 4,097 | 4,507 | 10,733 | 11,630 | 14,830 | 16,137 |
| March | 4,675 | 5,204 | 11,596 | 12,787 | 16,271 | 18,025 |
| April | 4,468 | 5,035 | 13,150 | 12,452 | 17,618 | 17,487 |
| May | 4,584 | 4,770 | 13,063 | 13,222 | 17,647 | 17,992 |
| June | <u>4,280</u> | <u>4,585</u> | <u>10,940</u> | <u>12,586</u> | <u>15,220</u> | <u>17,171</u> |
| Totals | 41,816 | 55,412 | 140,338 | 143,594 | 192,154 | 199,020 |

THE MEDICAL BULLETIN

Variety Club Heart Hospital 1957-58

| <u>Out-Patient Department</u> | | | | <u>In-Patient Department</u> | | | |
|---|-----------------|--------------|--|------------------------------|-------|---------------|--------|
| Clinic Attendance | | | | Admissions | (201) | 766 | |
| Adult | | | | | (301) | 610 | 1,376 |
| New | 414 | | | Transfers | | | |
| Old | <u>2,484</u> | 2,898 | | (In) | (201) | 104 | |
| | | | | | (301) | 100 | 204 |
| Pediatrics | | | | Transfers | | | |
| New | 478 | | | (Out) | (201) | 92 | |
| Old | <u>1,406</u> | <u>1,884</u> | | | (301) | 62 | 154 |
| Total | | 4,782 | | Discharges | (201) | 677 | |
| | | | | | (301) | 562 | 1,239 |
| Registration Fee | \$ 2,551.98 | | | Deaths | (201) | 85 | |
| Laboratory | 12,089.72 | | | | (301) | 61 | 146 |
| Drugs | 96.00 | | | Patient Days | (201) | 12,471 | |
| X-Ray | <u>2,774.70</u> | | | | (301) | <u>11,090</u> | 23,561 |
| Total | \$ 17,512.40 | | | Average Census | (201) | 34 | |
| | | | | | (301) | 30 | |
| <u>Heart Hospital X-Ray Department</u> | | | | Total for Hospital | | | 64 |
| In-Patient | 2,693 | | | Occupancy (%) | (201) | 97% | |
| Out-Patient | <u>1,729</u> | 4,422 | | | (301) | 89% | |
| No. Patients | | 4,758 | | Total for Hospital | | | 82% |
| <u>Heart Catheterization Laboratory</u> | | | | Average Length | | | |
| No. Procedures | 702 | | | of Stay | (201) | 16 | |
| Average (Monthly) | 59 | | | | (301) | 18 | |
| Fees | \$ 30,325.75 | | | Total for Hospital | | | 17 |
| <u>Laboratory Department</u> | | | | | | | |
| No. Procedures | | | | | | | |
| Yearly | 21,625 | | | | | | |
| Monthly | <u>1,802</u> | | | | | | |

THE MEDICAL BULLETIN

Social Service Department Statistical Report 1957-58

| | |
|--|---------------|
| 1. Total Number of Cases under Care during Year (MSW and PSW) | <u>11,090</u> |
| 2. Cases Carried over during Year | 4,667 |
| 3. Added to Caseload during Year | 6,423 |
| a. New | 2,026 |
| b. Old | 640 |
| c. Brief Service | 2,524 |
| d. Recurrent | 739 |
| e. Transfer from MSW | 291 |
| f. Transfer from PSW | 203 |
| 4. Subtracted from Caseload during Year | 3,805 |
| a. Transfer to MSW | 323 |
| b. Transfer to PSW | 244 |
| c. Closed | 3,238 |
| 5. Joint Cases | 175 |
| a. MSW | 5 |
| b. PSW | 170 |

THE MEDICAL BULLETIN

Nutrition Department 1957-58

Raw Food Cost

| | | | |
|---------------------------------|--------------|---------------|---------|
| Patients | | \$ 203,174.18 | (68.8%) |
| Professional Staff | | 92,185.62 | (31.2%) |
| Cafeteria | \$ 86,559.71 | | |
| Operating Room | 3,608.72 | | |
| Staff Luncheons | 2,017.19 | | |
| Total Raw Food Cost | | \$ 295,359.80 | |
| Average Cost per Patient Meal | | .35 | |
| Average Cost per Cafeteria Meal | | .353 | |

Meals Served

| | | |
|------------------------|---------|--------------|
| Patients | | 579,949 |
| Modified Diets | 162,627 | |
| Cafeteria | | 255,767 |
| Staff Luncheons | | <u>6,671</u> |
| Total | | 842,387 |
| Formulas Prepared | 15,028 | |
| Purees Bottled | 16,386 | |
| Supplementary Feedings | 18,836 | |

(cont'd)

Nutrition Department—Continued

| | ANNUAL TOTALS | MONTHLY AVERAGES | ANNUAL PERCENTAGES |
|---------------------------------|---------------|------------------|--------------------|
| Raw Food Cost | | | |
| Patients | \$ 203,174.18 | \$ 16,931.18 | 68.8 |
| Cafeteria | 92,185.62 | 7,682.14 | 31.2 |
| Total | \$ 295,359.80 | \$ 24,613.32 | 100.0 |
| Meals Served | | | |
| Patients | 579,949 | 48,329 | 68.8 |
| Cafeteria | 255,767 | 21,314 | 30.4 |
| Staff Luncheons | 6,671 | 556 | .8 |
| Total | 842,387 | 70,199 | 100.0 |
| Raw Food Cost (patients) | | | |
| Staples | \$ 4,549.14 | \$ 379.10 | 1.5 |
| General Diets | 122,365.05 | 10,197.09 | 41.4 |
| Special Diet Laboratory | 54,313.99 | 4,526.17 | 18.4 |
| Milk Laboratory | 2,755.97 | 229.66 | .9 |
| Floor Orders | 15,436.88 | 1,286.41 | 5.2 |
| Parties-Adult Psych., Rehab. | 1,044.03 | 87.00 | .4 |
| Parties-Child Psych. | 949.79 | 79.15 | .3 |
| Metabolic | 975.37 | 81.28 | .3 |
| Others | 783.96 | 65.33 | .3 |
| Total | \$ 203,174.18 | \$ 16,931.18 | 68.7 |
| Cafeteria | \$ 86,559.71 | \$ 7,213.31 | 29.4 |
| Operating Room | 3,608.72 | 300.73 | 1.2 |
| Staff Luncheons | 2,017.19 | 168.10 | .7 |
| Total | \$ 92,185.62 | \$ 7,682.14 | 31.3 |
| Grand Total | \$ 295,359.80 | \$ 24,613.32 | 100.0 |
| Patient Cost per Day | 1.051 | | |
| Patient Cost per Meal | .350 | | |
| Cafeteria Cost per Day | 1.056 | | |
| Cafeteria Cost per Meal | .353 | | |
| Raw Food Classification | | | |
| Meat, Cheese, Eggs | \$ 107,316.59 | \$ 8,943.05 | 36.4 |
| Canned Goods, Fruit, Vegetables | 64,438.22 | 5,369.85 | 21.8 |
| Milk and Cream | 62,992.88 | 5,249.41 | 21.3 |
| Fat and Oil | 11,763.02 | 980.25 | 4.0 |
| Miscellaneous | 48,849.09 | 4,070.76 | 16.5 |
| GRAND TOTAL | \$ 295,359.80 | \$ 24,613.32 | 100.0 |

THE MEDICAL BULLETIN

Medical Record Department 1957-58

Chart Service

Approximately 200,317 records were pulled by the Medical Record Department during the year 1957-58 for the following purposes:

| | |
|--|---------------|
| Insurance Reports | 6,669 |
| Studies and Follow-up | 33,389 |
| OPD Records for Clinic Visits and Fails | 130,299 |
| Hospital Admissions | 15,879 |
| Information Desk in Record Department (phone calls) | <u>14,081</u> |
| Total* | 200,317 |

*This total does not include an estimated 5,000 clinic fails for January - June, 1958, charts pulled for the weekly chart conferences, or charts pulled for clerks, nurses, attorneys, insurance inspectors, and others who come to the department in order to see records.

Research Projects

Thirty-three thousand, three hundred eighty-nine (33,389) records were pulled for studies and follow-up during the past year. Included in this count are 106 completed studies, 17 temporarily discontinued, 2 reactivated, and 13 long-term studies.

Change in Procedures

Two changes in procedure were made during 1957-58. On July 1, 1957 the Medical Record Department began indexing diseases according to a combined Standard Nomenclature of Diseases and Operations and International Statistical Classification file. The main reasons for this change were (1) to reduce the physical size of the index and (2) to provide a single listing of patients with related diseases, thus enabling us to obtain more complete groups of charts for case studies and research.

During the year replacement of old record folders with new color control folders which are designed to produce accurate filing in the department was begun.

(cont'd)

THE MEDICAL BULLETIN

Medical Record Department—Continued
1957-58

Stenographic Department

| | | |
|------------------------|--------|--------|
| Letters Transcribed | | 23,254 |
| Discharge | 12,004 | |
| Out-Patient | 11,250 | |
| Operations Transcribed | | 13,047 |
| General Surgery | 9,468 | |
| Cystoscopies | 3,579 | |
| Pathological Tissues | | 14,480 |
| Autopsies | | 10,479 |

The Medical Trainee course is still in effect in this department. It was begun for the dual purpose of training employees in medical terminology in order that they could more efficiently perform the duties of transcribing the various medical procedures that are done here, and secondly, to attempt to aid in the elimination of rapid turn-over of employees by giving them the opportunity of promotion within the office setting. The quality and quantity of work has been improved and the course has aided us in obtaining a more efficient type of worker.

THE MEDICAL BULLETIN

Department of Physical Medicine and Rehabilitation 1957-58

The fourth year of operation of the Rehabilitation Center showed a continued increase in the services performed for patients over previous years. In 1957-58 there has been an increase of 8 per cent in the number of patients seen in the Rehabilitation Center and an increase of 14 per cent in the number of patient visits for rehabilitation. Since 1954-55, the first year of operation, there has been an increase of 46 per cent in the number of patients registered and an increase of 29 per cent in the number of patient visits. In this same four-year period treatments have increased by 91 per cent from 63,665 in 1954-55 to 121,629 in 1957-58. The statistics showing the number of patients, visits, and the treatments by the various units of the Rehabilitation Center are given in Table I.

This year we have attempted to evaluate the vocational rehabilitation achieved by patients treated in the Rehabilitation Center. Table II lists the vocational status of patients at the time of discharge.

Table III lists the patients seen in this department by the category of condition treated.

Table IV summarizes the categories of therapy for the year.

TABLE I

| | 1956-1957 | | | 1957-1958 | | |
|-----------------------|-------------|------------|--------|-------------|------------|---------|
| | Out-Patient | In-Patient | Total | Out-Patient | In-Patient | Total |
| Patients | 605 | 2,154 | 2,759 | 492 | 2,479 | 2,971 |
| Patient Visits | 7,077 | 37,691 | 44,768 | 6,996 | 44,506 | 51,202 |
| Total Treatments | 21,002 | 70,540 | 91,542 | 24,628 | 97,001 | 121,629 |
| Physical Therapy | 13,371 | 34,795 | 48,166 | 17,236 | 55,445 | 72,681 |
| Occupational Therapy | | | | | | |
| Rehabilitation | 2,159 | 13,484 | 15,643 | 2,463 | 15,529 | 17,992 |
| Prevocational | 1,289 | 1,340 | 2,629 | 1,261 | 1,763 | 3,024 |
| Special Services | 8 | 19,259 | 19,267 | | 22,579 | 22,579 |
| Speech Therapy | 2,842 | 945 | 3,787 | 2,755 | 1,094 | 3,849 |
| Vocational Counseling | 1,333 | 717 | 2,050 | 913 | 591 | 1,504 |
| Social Service | | | 171 | | | 503 |

THE MEDICAL BULLETIN

Department of Physical Medicine and Rehabilitation—Continued

TABLE II
Rehabilitation Status of Patients Discharged
from the Rehabilitation Center

| | Patients | Per cent |
|---------------------------------|-----------|----------|
| Will resume previous employment | 405 | 24 |
| Homemakers, will return home | 134 | 8 |
| Children | 291 | 17.5 |
| Retired | 69 | 4 |
| Convalescing | 226 | 13.5 |
| Unemployable, returned home | 116 | 7 |
| Nursing home care | 216 | 13 |
| Deceased | 48 | 3 |
| Placed in new occupation | 45 | 2.7 |
| Trained for homemaking | 10 | |
| Begin educational program | 40 | 2.4 |
| College | 5 | |
| Vocational | 15 | |
| Correspondence | 3 | |
| On the job | 6 | |
| Sheltered workshop | 10 | |
| Homebound | 1 | |
| To be placed | 61 | 3.7 |
| Unemployed | <u>12</u> | 0.7 |
| | 1,673 | |

THE MEDICAL BULLETIN

Department of Physical Medicine and Rehabilitation—Continued

TABLE III
Categories of Diseases or Disabilities Treated

| | |
|--|-----------|
| 1. Infective and parasitic diseases | 42 |
| 2. Neoplasms | 130 |
| 3. Allergic, endocrine, metabolic and nutritional diseases | 70 |
| 4. Diseases of the blood and blood-forming organs | 95 |
| 5. Mental, psychoneurotic and personality disorders | 520 |
| 6. Diseases of the nervous system and sense organ | 511 |
| 7. Diseases of the circulatory system | 201 |
| 8. Diseases of the respiratory system | 25 |
| 9. Diseases of the digestive system | 42 |
| 10. Diseases of the genito-urinary system | 123 |
| 11. Diseases of the skin | 44 |
| 12. Diseases of the bones and organs of movement | 358 |
| 13. Congenital malformations | 253 |
| 14. Symptomatic conditions, senility, and ill-defined conditions | 106 |
| 15. Accidents, poisoning and traumatic injuries | 378 |
| 16. Speech disorders and involvements | <u>73</u> |
| TOTAL | 2,971 |

THE MEDICAL BULLETIN

Department of Physical Medicine and Rehabilitation—Continued

TABLE IV
Summary of Therapy

| | <u>Out-Patient</u> | <u>In-Patient</u> | <u>Total</u> |
|----------------------------------|--------------------|-------------------|---------------|
| <u>Physical Therapy</u> | | | |
| Diathermy | 1,651 | 626 | 2,277 |
| Electric Stimulation | 97 | 207 | 304 |
| Hot Packs | 759 | 2,289 | 3,048 |
| Hubbard Tank | 79 | 1,125 | 1,204 |
| Massage | 2,806 | 3,806 | 6,612 |
| Paraffin | 486 | 1,162 | 1,648 |
| Radiant Heat | 246 | 585 | 831 |
| Therapeutic Exercises | 9,813 | 42,841 | 52,654 |
| Ultraviolet | 311 | 1,533 | 1,844 |
| Whirlpool | 974 | 1,240 | 2,214 |
| Miscellaneous | <u>14</u> | <u>31</u> | <u>45</u> |
| TOTALS | 17,236 | 55,445 | 72,681 |
| <u>Speech Therapy</u> | | | |
| Evaluation | 39 | 41 | 80 |
| Training | <u>2,716</u> | <u>1,053</u> | <u>3,769</u> |
| TOTALS | 2,755 | 1,094 | 3,849 |
| <u>Occupational Therapy</u> | | | |
| ADL Training | 228 | 1,822 | 2,050 |
| Diversional | 270 | 7,326 | 7,596 |
| Functional | 1,965 | 6,381 | 8,346 |
| Prevocational | <u>1,261</u> | <u>1,763</u> | <u>3,024</u> |
| TOTALS | 3,724 | 17,292 | 21,016 |
| <u>Service Units O.T.</u> | | | |
| Pediatrics | | 5,744 | 5,744 |
| Child Psychiatry | | 3,223 | 3,223 |
| Adult Psychiatry | | <u>13,612</u> | <u>13,612</u> |
| TOTALS | | 22,579 | 22,579 |
| <u>Vocational Rehabilitation</u> | | | |
| Counseling | 388 | 395 | 783 |
| Interviews & Contacts | <u>525</u> | <u>196</u> | <u>721</u> |
| TOTALS | 913 | 591 | 1,504 |
| Vocational Placement | 45 | | 45 |
| TOTAL TREATMENTS (PM&R) | 24,628 | 97,001 | 121,629 |



In Memoriam

Dr. James S. McCartney died suddenly and unexpectedly on August 30, 1958, at the end of his annual vacation, which he had spent this year in Minneapolis with his family rather than in the Montana Rockies, as was his long-established custom.

Dr. McCartney was born July 21, 1893, at Tarentum, Pennsylvania. He received the B.A. degree from Washington and Jefferson College in 1913 and the M.D. degree from Johns Hopkins University in 1917. He was an intern at St. Francis Hospital, Pittsburgh, from July 1917 to July 1918 and served as a First Lieutenant, Medical Corps, Field Remount Squadron 317, A.E.F. in World War I. From November 1919 to September 1920 he was a Fellow in Surgery, Mayo Foundation. Appointed to the staff of the Department of Pathology, University of Minnesota Medical School in 1920, he served continuously in that department until his death, becoming Professor of Pathology in 1949.

He was a member of the Hennepin County Medical Society, Minnesota State Medical Association, American Medical Association, American Association of Pathologists and Bacteriologists, American Association for Cancer Research, College of American Pathologists, International Academy of Pathology, Minnesota Society of Clinical Pathologists, and the Minneapolis Academy of Medicine. A Diplomate of the American Board of Pathology, he was for many years President of the Minnesota State Board of Examiners in the Basic Sciences and Secretary-Treasurer of the Minnesota Pathological Society.

Dr. McCartney had a kindly, generous nature and was loved and respected by his students and colleagues, with whom he was always willing to share his wide experience and wise counsel. He made important contributions to medical literature especially that on thrombosis and embolism and on cirrhosis of the liver. His interest in forensic pathology and medicolegal problems made him a highly valued consultant in these fields.

Medical School Faculty

ADMINISTRATION

COLLEGE OF MEDICAL SCIENCES

Robert B. Howard, Dean
N. L. Gault, Jr.,
Assistant Dean
H. Mead Cavert,
Assistant Dean

HOSPITALS

Ray M. Amberg, Director
Gertrude M. Gilman,
Associate Director
Gerold Frawley
Assistant Director,
Manager of the Variety
Club Heart Hospital,
In charge of Service
and Supplies
Eugene Staples,
Assistant Director,
Manager of the Out-
Patient Department,
Fiscal Officer
Florence Julian, Director
of Nursing Services
Sue Kern, Assistant Director
of Nursing Services
Angeline Mannick,
Director of Nutrition
Audrey Coulter,
Administrative Dietitian
Annie Laurie Baker,
Director of Social Service
Philip W. Hursh,
Hospital Health Officer
Hallie Bruce,
Chief Pharmacist
Charles Dopking, Supervisor
X-Ray Services
Grace Mary Ederer
Senior Administrative
Laboratory Technologist
Hazelle Erickson,
Rehabilitation Coordinator
Irene Foster, Director
of Volunteer Services
Fred Hamilton, Hospital
Maintenance Supervisor
Ethel Harrington,
Personnel Officer
Esther Hayes, Director,
Powell Hall
Leonard Leipus, Central
Supply Supervisor
Merle McGrath, Hospital
Fiscal Supervisor
Margaret McHugh,
Executive Housekeeper

Bertha Pfenninger, Principal
Medical Record Librarian
Alvin Shemesh, Director,
Medical Art and
Photography
Helborg Gilbertson,
Administrative Secretary
Jack Fecteau,
Administrative Resident
Donald Van Hulzen,
Administrative Resident

ANATOMY

Arnold Lazarow,
Professor and Head
Professor Emeritus
E. A. Boyden
Hal Downey
Shirley P. Miller
Professor
Berry Campbell
J. Francis Hartmann
Lemen J. Wells
Associate Professor
R. Dorothy Sundberg
Assistant Professor
Anna-Mary Carpenter
Joseph Davidson
William J. L. Felts
Robert L. Vernier
Instructor
Carl T. Friz
Lucille Hoiland
Ung Kee Hwang
Donald C. Meredith
James E. White
Research Fellow
Carl Heggstad
Louis Molineaux
Edna Speidel
Research Assistant
Richard Condie
Teaching Assistant
Mary Jane Buckman
John Campbell
Chester A. Glomski
Charles H. Good
Carl R. Morgan
Leonard R. Murrell
Raymond Seale
Austin Yates
Robert Wahman

ANESTHESIOLOGY

Frederick H. Van Bergen,
Professor and Head
Professor Emeritus
Ralph T. Knight

Clinical Associate Professor

Ellis N. Cohen
Assistant Professor
Joseph J. Buckley
Instructor
Charles F. Galway
John R. Gordon
James H. Matthews
Aruthur J. Oswald
Earl A. Schultz
Clinical Instructor
Russell W. Bagley
J. Albert Jackson
Byron D. Peterson
Medical Fellow Specialist
Hannaliese Kralemann
Medical Fellow
Bernard Boecker
Edward Burleigh
Hector H. Cabral
Thomas M. Griffin
George W. Heine
E. G. Hustad
Woo Hyang Hwang
Yilmaz Kadioglu
Bette Kaul
William E. Kemp
Wm. F. Kennedy, Jr.
In Hyun Kim
Irene Kosiak
James Kussy
Philip A. L'Abbe
William Chae-Sik Lee
Leonardo R. Martinez
Horst May
Ceronimo P. Santos
William Sargent
John M. Sheehan
Mario Veluz
Donald Vroman
George R. Weeks
Hugh D. Westgate

BACTERIOLOGY AND IMMUNOLOGY

Jerome T. Syvertson,
Professor and Head
Professor
Herman C. Lichstein
Dennis W. Watson
Associate Professor
Karl R. Johansson
William F. Scherer
Edwin L. Schmidt
Newell R. Ziegler
Assistant Professor
S. Gaylen Bradley
Gerhard Brand
Moyses A. Fuks

THE MEDICAL BULLETIN

Wendell H. Hall
Robert Q. Marston
G. Albin Matson
Leroy C. McLaren
John D. Ross
Instructor
Robert A. Bridges
Richard L. Crowell
S. Joseph Deal
John J. Holland
James T. Prince
Robert W. Tankersley, Jr.
John E. Verna

Research Associate
J. Johanna Clausen
Maria deBrito
Fritz Lehmann-Grube

Teaching Assistant
Dorothy Anderson
Dwight Anderson
Robert A. Anderson
George Becker
William Begue
Roswell Coles
Natalie Cremer
Bruno Cunha
Del Rose Duhbs
John Duerre
Ollie Eylar, Jr.
Joanne Finstad
Martin Freundlich
Robert Gerloff
Andrew Granston
James Hardy
Ralph Heiser
Ronald Hinz
Richard Hyale
Toshiaki Izumi
Richard Jamison
Terry Johnson
George E. Kenny
Nikolai Koropchak
Ho Wang Lee
Richard Lyon
Ovidio Mira
Ronald Olsen
Mary Pollock
Betty Ruspino
Judith Tennant
James Waller
Donald Willoughby

CONTINUATION MEDICAL EDUCATION

W. Albert Sullivan, Jr.,
Director, and Assistant
Professor of Surgery

HOSPITAL LABORATORIES

Gerald T. Evans, Director
Ellis S. Benson,
Associate Director

Newell R. Ziegler,
Director of Blood Bank
R. Dorothy Sundberg,
Hospital Hematologist
Franklin Wallace,
Associate Professor
Zoology, Consultant in
Parasitology
Robert Bridges,
Clinical Bacteriologist
Ruth Hovde,
Associate Director of
Medical Technology
Verna Rausch,
Assistant Professor in
Medical Technology
Grace Mary Ederer,
Senior Administrative
Laboratory Technologist
Esther Freier, Assistant
Professor in Medical
Technology Hospital
Chemist
Lorraine Gonyea, Instructor
in Medical Technology,
Hematology Laboratory
Elaine McMaster,
Instructor in Medical
Technology, Pathology
Laboratory
*Instructor and Student
Technologist Supervisor*
Patricia Hanauer
Betty Ruspino
Lydia Wetzel
Medical Fellow Specialists
James Scott Abercrombie
Rex Conn
Mary Beth Dempsey
Bruce Jarvis
Robert H. Kooiker
Douglas Nelson
Samuel Southwick
Edmond Yunis

MEDICINE

Cecil J. Watson,
Professor and Head
Professor Emeritus
Moses Barron
George E. Fahr
J. Arthur Myers
Henry L. Ulrich
S. Marx White
Clinical Professor Emeritus
Reuben A. Johnson
F. H. K. Schaaf
Professor
Gerald T. Evans
Edmund B. Flink
Ivan D. Frantz
Frederick W. Hoffbauer
Robert B. Howard

Wesley W. Spink
Clinical Professor
Thomas Lowry
*Clinical Associate
Professor Emeritus*
Carl B. Drake
Thomas A. Peppard
Associate Professor
Ellis Benson
Paul S. Hagen
Wendell H. Hall
Byrl J. Kennedy
Richard Magraw
Samuel Schwartz
Louis Tobian, Jr.
Leslie Zieve
Clinical Associate Professor
Donald S. Amatuzio
Carl W. Anderson
Reuben Berman
Jacob Blumenthal
John J. Boehrler
Joseph F. Borg
John F. Briggs
James B. Carey, Sr.
E. P. K. Fenger
Robert A. Green
Howard L. Horns
Wyman E. Jacobson
Arthur C. Kerkhof
John W. LaBree
Donald McCarthy
Chauncey A. McKinlay
Harold Miller
Herbert F. R. Plass
L. Raymond Scherer
Horatio B. Sweetser, Jr.
A. Boyd Thomes
Macnider Wetherby
J. Allen Wilson
Ragnvald S. Ylvisaker
Assistant Professor
James B. Carey, Jr.
Sumner S. Cohen
Edmund P. Eichhorn
N. L. Gault, Jr.
Frederick C. Goetz
Frank MacDonald
Murray John Murray
C. Paul Winchell
Horace Zinneman
Clinical Assistant Professor
Rolf Andreassen
Paul J. Bilka
James Dahl
Jay C. Davis
Abraham Falk
William R. Fifer
Richard J. Frey
Benjamin Fuller
Delmar R. Gillespie
Albert J. Greenberg
Mark Hanson
Douglas P. Head

THE MEDICAL BULLETIN

Edgar T. Herrmann
Earl Hill
John E. Holt
Wayne Hoseth
John W. Johnson
Walter Larrabee
George X. Levitt
Robert E. Lindell
Paul T. Lowry
James C. Mankey
Frank Martin
William Mazzitello
Charles McCloud
Burtis Mears
J. C. Miller
Johannes K. Moen
James Myhre
William E. Petersen
Fred A. Rice
Dean K. Rizer
George G. Roth
Joseph M. Ryan
Alvin Schultz
Andrew Shea
Ben Sommers
Lowell Weber
Asher A. White

Instructor

Arnold Adicoff
Carl S. Alexander
William E. Anderson
James L. Brown
Thaddeus Chao
Richard Doan
Richard Philip Doe
Alfred Doscherholmen
Alfred Eichenholz
A. Sigrid Gilbertsen
Harry Glenchur
Mary Goepfert
George B. Gordon
Clinton B. Hatfield
John C. Hutchinson
John W. Jenne
Henry A. Johnson, Jr.
Charles P. Kolars
James P. Lillehei
James Melby
Harold D. Miller
Robert G. Rossing
Naip Tuna

Clinical Instructor

Henry W. Blackburn, Jr.
Robert D. Blomberg
Donald G. Bohn
Ephraim Cohen
Henry W. Cohen
David M. Craig
Frederick Englund
John Gifford Fee
David Fingerman
Milton M. Hurwitz
Kjeld O. Huseby
Martin E. Janssen

Herbert W. Johnson
David G. Jones
Harold A. Kaplan
Markle Karlen
Donald Koza
Charles E. Lindemann
Russell C. Lindgren
Jack T. Murphy
O. L. Norman Nelson
William A. O'Brien
Valentine O'Malley
William Dunn Remole
Alan P. Rusterholz
Raymond W. Scallen
William M. Schulze
Marguerite Schwyzer
Philip H. Soucheray
Donald B. Swenson
Francis B. Tiffany
Richard Tregilgas
Frank A. Ubel, Jr.
Jack Vennes
A. Cabot Wohlrahe

Clinical Assistant

Alfred Anderegg
Dale Correa
David Gold
Aaron L. Mark
William Nuessle
Earl Opstad

Medical Fellow

Richard A. Anderson
Mohammed Abdul Aziz
William Phillip Baldus
Jerome J. Ballentine
Graham Beaumont
William Blackwood
Henry Simon Bloch
Herbert Blough
Paul Bowlin
Rene Braun
Charles Chedistes
Richard Bradley Davis
Richard Donald DeSwarte
Fred York Durrance
Rafael Fernandez
Raymond Friedman
Stanley Fruchtman
Muharren Gokcen
Gerald Joseph Goldenberg
Charles Hardy Gregory
William C. H. Grimm
Robert Gruninger
Ko Ko Gyi
Gislea Hanemann
Kenneth G. Hanson
Wilbert J. Henke
Robert Hilker
Maynard E. Jacobson
Darwin F. Johnson, Jr.
Robin Reynolds Johnston
John Parkes Kinnard, Jr.
Edorado E. Leuthold
Constance O. Lim

Robert J. McCollister
Manuel S. Mejia
Eusebio R. Mendoza, Jr.
Robert Multhausen
George Atkinson Pankey
William Paule
John Albert Penner
Richard Pfohl
Robert A. Raich
Thomas Recht
Rudolph Ripple
Gordon Robertson
James Ronan
Robert James Schultz
Russell Schulz
Hobart Setzer, Jr.
Stanley W. Shapiro
Yuzo Shibata
Emanuel Silverstein
Duane Smith
Robert Strom
Athanasios Theologides
Selwyn Willig
Richard Woellner
Donald Woodley
Research Associate
Page Edmondson
Research Fellow
Frank Hieber

DIVISION OF DERMATOLOGY

Francis W. Lynch,
Professor and Director
Professor Emeritus
Henry E. Michelson
S. E. Sweitzer
Clinical Professor
Carl W. Laymon
Clinical Associate
Professor
Stephen Epstein
Clinical Assistant
Professor Emeritus
Charles Freeman

Clinical Assistant Professor

Frederic T. Becker
I. Fisher
Robert W. Goltz
John Rukavina
Elmer M. Rusten

Instructor

Ramon M. Fusaro
Clinical Instructor
Charles Balogh
Elmer T. Cedar
Elmer M. Hill
Irvine Karon
Sheldon Mandel
Orville E. Ockuley
Harold G. Ravits
Nadine C. Smith
James Tuura
C. Gordon Vaughan

THE MEDICAL BULLETIN

Medical Fellow

Duane R. Anderson
G. H. Binder
R. Z. Blazejovsky
Hubert Brown
Richard Dahlen
Richard Dang
Gerald Kvistberg
Mary Maguire
Joseph Martin
Daniel F. Shanahan

OBSTETRICS AND GYNECOLOGY

John L. McKelvey,
Professor and Head

Associate Professor

Irwin H. Kaiser

Assistant Professor

Konald A. Prem

Clinical Assistant Professor

Alex Barno
Irving Bernstein
Claude J. Ehrenberg
Donald W. Freeman
Leonard A. Lang
Mancel T. Mitchell
William F. Sadler
Rodney F. Sturley
Roy E. Swanson

Instructor

James R. Bergquist
Robert C. Goodlin
George W. Janda

Clinical Instructor

Milton Abramson
Titus P. Bellville
Joseph F. Bicek
Ray F. Cochrane
John S. Gillam
Joseph Goldsmith
John A. Haugen
Albert F. Hayes
Eugene M. Kasper
Harold R. Leland
Edward C. Maeder
Owen F. Robbins
David I. Seibel
Melvin B. Sinykin
James J. Swendsen

Clinical Assistant

Paul N. Larson
Charles H. McKenzie

Medical Fellow

Leon L. Adcock
James W. Fergus
Richard D. Hockett
Robert R. Horton
Thomas H. Kirschbaum
Stanley D. Levine
Fred A. Lyon
Edgar L. Makowski
John E. Mathers

Eugene W. Mauch
Nicholas M. Mensheha
Milton G. Mutch
Jack E. Wall

OPHTHALMOLOGY

John E. Harris
Professor and Head—
January, 1959

John P. Wendland
Clinical Associate
Professor and Acting
Head to January, 1959

Erling W. Hansen
Professor Emeritus

Associate Professor

Ernst Simonson

Clinical Associate Professor

Hendrie W. Grant
Walter L. Hoffman
Charles Hymes

Clinical Instructor

Edward P. Burch
Richard C. Horns
Bruce L. Kantar
Robert H. Monahan
Karl E. Sandt
Virgil J. Schwartz

Clinical Instructor

Frank Adair
Wilfred J. Bushard
Llewellyn Christensen
Robert R. Cooper
Robert J. Fink
Harry S. Friedman
Joseph L. Garten
Bourne Jerome
Douglas L. Johnson
R. O. Leavenworth, Jr.
Vernon L. Lindberg
Winston R. Lindberg
Malcolm A. McCannel
John A. McNeill
Thomas W. O'Kane
Harry L. Plotke
Robert E. Rocknem
Irving Shapiro
Howard A. Shaw
Leander T. Simons
Gordon E. Strate
George T. Tani
Charles E. Tesar
Frederic F. Wippermann

Medical Fellow

Oscar D. Anderson
Rolf A. Becker
Russell Boehlke
Donald Herrick
Robert P. Koenig
Ernest J. Larson
Sidney Nerenberg
Thomas K. Rucker
Orlando Y. L. Udasco
Robert Wohlrabe

OTOLARYNGOLOGY

Lawrence R. Boies,
Professor and Head

Professor Emeritus

Henry B. Hanson

Clinical Professor

Anderson C. Hilding
Jerome A. Hilger

Associate Professor

Frank M. Lassman

Clinical Associate Professor

John J. Hochfilzer
Robert E. Priest

Clinical Assistant Professor

Benjamin Bofenkamp
Conrad J. Holmberg
Douglas Kuske
Graham G. Smith
George M. Tangen, Sr.
Harold S. Ulvestad

Instructor

Kurt Pollak

Clinical Instructor

John Glaeser
Malcolm R. Johnson
Robert L. Koller
Bradley Kuske

Medical Fellow

James Donaldson
Arndt DuVall
John Hilger
Lothar Kaul
Richard Lund
Duane Nagle
Robert Richardson
George V. Tangen, Jr.
Frank Van De Water

PATHOLOGY

James R. Dawson, Jr.,
Professor and Head

Professor Emeritus

Elexious T. Bell
Benjamin J. Clawson

Professor

Robert Hebbel

Associate Professor Emeritus

Kano Ikeda

Associate Professor

John F. Noble

Clinical Associate Professor

Nathaniel Lufkin

Assistant Professor

Joel G. Brunson
John I. Coe
Paul H. Lober
Lee W. Wattenberg

Instructor

Paul R. Finley
Donald Gleason
James R. McClellan
Thomas Semba

THE MEDICAL BULLETIN

Clinical Instructor

S. Steven Barron
Craig Freeman
Ellyer James
Allen Jay
Allen Judd
Donald Larson
Stanley Lofness
Frederick Lott
Martin Segal
Walter Subby

Teaching Assistant

Richard M. Steidl

Medical Fellow Specialist

Richard L. Davis
Charles N. Gamble
John A. Gronvall
Mitchell J. Rosenholtz

Medical Fellow

John Foft
Seymour Handler
Gerald Hoffman
Norman M. Horns
Tauno E. Ketola
George Skworcow
Gordon C. Taylor
Louis J. M. Tremblay
Alvin Waters

Clinical Fellow

Robert Foley
Robert E. Rydell

DIVISION OF CANCER

BIOLOGY

John J. Bittner,
Professor and Director

Professor

Franz Halberg

Assistant Professor

Herbert M. Hirsch

PEDIATRICS

John A. Anderson,
Professor and Head

Professor

Robert A. Good
Lewis W. Wannamaker

Clinical Professor

Bryng Bryngelson
Hyman S. Lippman
Albert V. Stoesser

Associate Professor

Robert A. Ulstrom
Mildred R. Ziegler

Clinical Associate Professor

Joseph T. Cohen
Paul F. Dwan
Harold B. Hanson
L. F. Richdort
David Siperstein
Robert L. Wilder
Assistant Professor
Paul Adams, Jr.
Ray C. Anderson
Eleanor Colle
William Krivit

Richard B. Raile
Robert L. Vernier
Richard Von Korff

Clinical Assistant Professor

Arnold S. Anderson
Stuart L. Arey
Northrop Beach
Eldon Berglund
Marguerite Booth
Heinz Bruhl
Woodard Colby
Paul Ellwood
Harold Flanagan
John J. Galligan
Frank Hedenstrom
Emanuel Lippman
Elizabeth Lowry
George W. Lund
Edward Nelson
Alfred Ouellette
Theodore Papermaster
Edwin Robb
Robert Rosenthal
W. Ray Shannon
Theodore Smith
Willis Thompson

Instructor

Heinz Berendes
Robert Bridges
Barbara Burke
Paul Quie
Harold M. Sterling
Howard Worthen

Clinical Instructor

William Bevis
Alice Brill
Richard Cushing
Alice Fuller
Clayton Green
Evelyn Hartman
William Heilig
George Kimmel
Wallace Lueck
William Mulholland
Lloyd Nelson
Everett Perlman
Frances E. Schaar
Albert Schroeder
Eva Shaperman
Henry Staub
Ellsworth Stenswick
Norman Sterrie
Edward Strem
John Tobin
Richard Tudor

Research Fellow

John Bornhofen

Clinical Assistant

Sol Austrian
Edwin Burklund
Lawrence Erickson
Andrew Erlanson
Donnell Etwiler
Robert Gibbs

Richard Lien
Sidney Scherling
Lewis Sher
Edward Walsh

Medical Fellow Specialist

Margaret Berendes
Louis J. Krovetz
Roswith Lade
Joseph St. Geme
Gerald Schiebler
Andrew Thalheim

Medical Fellow

Elia Ayoub
Charles Beauchamp
Peter Berman
Robert Bugenstein
John Carlisle
Aldon Clark
Ida Gans
Charles Geppert
Robert Hodapp
Harold Katkov
Rufus Lee
Russell Lucas, Jr.
Raymond Peterson
Arthur Page
John Reynolds
Harold M. Richardson

DIVISION OF

CHILD PSYCHIATRY

Reynold A. Jensen,
Professor and Director

Assistant Professor

James Lawton
Wentworth Quast

Instructor

Denton Engstrom
Ruth Hase
William Wolking

PHARMACOLOGY

Raymond N. Bieter,
Professor and Head

Professor

Wilbur M. Benson
Harold N. Wright

Assistant Professor

Elizabeth M. Cranston
Clinical Assistant Professor
Norman O. Holte
Teaching Assistant
Theodore Gram
John D. Palmer
James A. Vick

PHYSICAL MEDICINE AND REHABILITATION

Frederic J. Kottke,
Professor and Head

Professor

William G. Kubicek

Clinical Professor

Miland E. Knapp

THE MEDICAL BULLETIN

Associate Professor

Frank M. Lassman

Assistant Professor

Peter A. Briggs
William Fleeson
Borghild Hansen
Ruby M. Overmann

Instructor

John D. Allison
Paul M. Arnesen
Marian Eliason
Dorothy Esch
Victor A. Gilbertson
Glenn Gullickson, Jr.
Michael Kosiak
Marvin G. Lepley
Wilbur L. Moen
Martin O. Mundale
James F. Pohilla
Samuel Reichel
Bernard Sandler
Harold M. Sterling
Bror Troedsson

Clinical Instructor

Joseph P. Engel
Sarah J. Gault
Richard Owen

Arthur B. Quiggle

Medical Fellow

Herbert A. Schoening
Walter C. Stolv
Soe M. Thein

Lecturer

Willis Beasley

PHYSIOLOGICAL CHEMISTRY

Wallace D. Armstrong
Professor and Head

Professor

Cyrus P. Barnum, Jr.
Paul D. Boyer
Ivan D. Frantz
David Glick
Ralph T. Holman
Karl Sollner

Associate Professor

Charles W. Carr
Helmut R. Gutmann
Leon Singer
Frank Ungar

Assistant Professor

William O. Caster
Edward Ronwin
John F. Van Pilsum
Richard W. Von Korff

Instructor

Curtis H. Carlson

Research Fellow

Robert B. Ferguson
Leonard Greenberg
Charles C. Irving
Arthur Kowalsky
Mary Ann Morgan
Venkatesworlu Pothapragada

Ulysses S. Seal

Robert Twedt

Medical Fellow

Robert Boldt
Lawrence Cerey
Robert Fabiny

Teaching Assistant

Beverley Bickum
Leland K. Dahle
Daniel Gilboe
D. Holly K. Hayes
Richard Joos
Lester L. Lansky
William J. Peterson

Research Assistant

Yerda Anderegg
David Ives
Amritlal Parekh
Alan Reynard
Betty Tang
Lewie Travis, Jr.
Charles Stroebel

PHYSIOLOGY

Maurice B. Visscher,
Professor and Head

Professor

E. B. Brown, Jr.
Joseph T. King
Nathan Lifson
Victor Lorber
Carlos Martinez
Herbert Wells

Associate Professor

Eugene D. Grim
John A. Johnson

Assistant Professor

H. Mead Cavert
Robert L. Evans
Laurence O. Pilgeram
Robert E. Swanson
Research Associate
Donald F. Clausen
Jui S. Lee

Y. Chiung P. Lee

Instructor

Lerner B. Hinshaw
Morris W. Meyer
John Trank

Teaching Assistant

James Andrews
Robert Hamilton
Shirley Schmidt
John L. Walker, Jr.
George Wermers

Research Assistant

Garold Beals
Antoinette Mariani
Wilbert Sandstrom
Ramachandrier Saroja

PSYCHIATRY AND NEUROLOGY

Donald W. Hastings,
Professor and Head

DIVISION OF PSYCHIATRY *Professor*

Reynold A. Jensen
Burtrum C. Schiele
Werner Simon

Clinical Professor Emeritus

Ernest M. Hammes, Sr.
Joseph C. Michael

Clinical Professor

Dale C. Cameron
S. Alan Challman
Adelaide Johnson
Hyman S. Lippman

Associate Professor

Richard W. Anderson
Bernard C. Gluek, Jr.
Robert Hinckley
Richard M. Magraw

Clinical Associate Professor

Clifford O. Erickson
Walter Gardner
Harold B. Hanson
Gordon R. Kamman
Marvin Sukov

Assistant Professor

William Fleeson
G. Wendell Hopkins
Frank Kiesler
Carl Koutsky
H. Douglas Lamb
James Lawton, Jr.
Myron Messenheimer
Otto N. Rath, Jr.
William F. Sheeley

Clinical Assistant Professor

Irving Bernstein
Robert P. Bush
Leslie Caplan
Gove Hambidge, Jr.
Philip Feinberg
Fred Gross
Joyce S. Lewis, Jr.
Clarence J. Rowe

Instructor

Ann Margaret Bailey
George Dorsey
William Jepson
Orville Johnson
Frances Olson

Clinical Instructor

Robert Clark
Donald Daggett
James Garvey
Charles Haberle
Henry Johnsen, Jr.
Richard C. Kogl
J. Benjamin Lund
James Lyons
Donald Mayberg
Jennings C. Peteler
Anthony Pollock, Jr.

Medical Fellow

William Baak
Jerome Bach
Richard Bealka

THE MEDICAL BULLETIN

Paul Bransford
Floyd Garetz
Hildegard Graber
Alan Hovda
Richard Kastner
Ronald Kyllonen
Glenn Lewis
John Mulvahill
Angelina Sorreia
Floyd Westendorp
Harper Willis

Research Assistant

Ronald C. Smith
Research Fellow
Nathan G. Mandel
Abelardo Mena

DIVISION OF NEUROLOGY

A. B. Baker,
Professor and Director

Professor

Royal C. Gray

Clinical Professor

Harold H. Noran

Associate Professor

Maynard M. Cohen

Clinical Associate Professor

Robert Meller

Zondal R. Miller

Joseph A. Resch

Assistant Professor

Harold P. Cohen

John Logothetis

Frank Morrell

Fernando Torres

David Webster

Clinical Assistant Professor

Harold Berris

William S. Chalgren

Ernest M. Hammes, Jr.

Andrew Leemhuis

Hildred Schuell

Sidney K. Shapiro

V. Richard Zarling

Instructor

Gilbert Frank

Anthony Iannone

Edward Jimenez-Pabon

David Mendelson

Erland R. Nelson

Clinical Instructor

Harris G. Bernhisel

Robert Stoltz

Research Fellow

William Bradley

Sping Lin

Medical Fellow

Maland Hurr

J. T. Jabbour

John Kelly

William G. Lucas

Jonas Miller

Motoji Miyazaki

John Moriarty

William Norman
Kenneth Osterberg
William G. Peterson
Francis W. Ramsay
Gilbert Ross
Bernard Sandler
Ann Marie Travis
John S. Warner
Hans Zwang

Teaching Assistant
Naomi Quevellon

DIVISION OF CLINICAL PSYCHOLOGY

Starke R. Hathaway,
Professor and Director

Professor

Paul E. Meehl

Associate Professor

William Schofield

Robert Wirt

Assistant Professor

Peter F. Briggs

Harold Gilbertstadt

Gordon T. Heistad

David T. Lykken

Manfred J. Meier

Wentworth Quast

Daniel N. Wiener

Instructor

John P. Brantner

Alexander B. Caldwell

Patricia K. Good

John Kangas

Thomas J. Kiresuk

Guy H. Miles

William Wolking

Clinical Instructor

Leo Hanvik

Albert Ruskabakke

Murray Stopol

Research Fellow

Walter B. Studdiford

Lawrence A. Young

Clinical Fellow

Aurelio Torres

RADIOLOGY

Harold O. Peterson,
Professor and Head

DIVISION OF ROENTGEN

DIAGNOSIS

Associate Professor

Joseph Jorgens

Clinical Associate Professor

J. Richards Aurelius

Daniel L. Fink

Oscar Lipschultz

John P. Medelman

Assistant Professor

Richard G. Lester

Ivor Smyth

Clinical Assistant Professor

Osmond J. Baggenstoss

Chauncey N. Borman
Samuel B. Feinberg
Sewell Gordon
Cyrus Owen Hansen
Malcolm B. Hanson
Gjert Kelby
Donald H. Peterson

Instructor

Kurt Amplatz
Norman Blank
Lewis Carey
Richard Greenspan

Clinical Instructor

Eugene Ahern
Heino Alari
Manouchehr Azad
Leon J. Bullock
Stanford H. Calin
John B. Coleman
Marvin Goldberg
Frank R. E. Gratzek
Bernard Hall
Richard S. Johnson
Robert Kasper
Warren L. Kump
Thomas B. Merner
Harry Mixer
Leo Nash
Ames Naslund
Paul C. Olfelt
Arnold O. Rholl
Norman F. Stone
Richard C. Tucker
Stanley C. VonDrashek

Medical Fellow Specialist

Andrew Lillie
Gilbert Melnick

Medical Fellow

Luis Ardila
Stanley L. Chow
Bhasker Desai
Robert R. Foley
Lloyd Gillin
H. Wilson Godfrey
Harlin Hawkinson
Frederick Henke
Jule J. Hopperstad
John E. Indihar, Jr.
Thomas E. Johnson
Ilmar Kiesel
Maurice Lapp
Paul Leon
J. Paul Leonard
Arthur Lieber
Andrew Lillie
George L. Loebe
William B. Lundeen
Donald McFarlane
James A. McNally
Earl Pash
Loren Rothstein
Paul Selchau
William Stevens
Gordon Taylor

THE MEDICAL BULLETIN

Henry W. Walters
Hubert Werthmann
Justin L. Williams
George P. Wilson
James Youker

DIVISION OF RADIATION THERAPY

Donn G. Mosser,
Associate Professor
and Director
Professor Emeritus
K. Wilhelm Stenstrom
Associate Professor
James Marvin
Assistant Professor
Merle Loken
Clinical Assistant Professor
Solveig M. Bergh
Elmer Paulson
Instructor
Arnolds Veinbergs

SCHOOL OF PUBLIC HEALTH

Gaylord W. Anderson,
Mayo Professor and
Director
Professor Emeritus
Jay A. Myers
Professor
Ray M. Amberg
Jacob Bearman
Richard G. Bond
Herbert M. Bosch
Ruth E. Boynton
Ruth E. Grout
James Hamilton
Marion I. Murphy
Theodore A. Olson
Leonard M. Schuman
James W. Stephan
Stewart C. Thomson
Helen M. Wallace
Associate Professor
Richard C. Bond
Donald W. Cowan
Gertrude M. Gilman
Edith M. Lentz
Richard B. McHugh
George Michaelson
Harold Paulaus
I. Richard Savage
Ruth von Bergen
Assistant Professor
Eleanor M. Anderson
Murray Bates
Nora Cline
Eugene A. Johnson
Phillip D. Kernan
Archibald Kincaid
Mary Ann McIntyre
Benjamin R. Reiter
Tomic Romson

Evelyn Sanburn
Eugene Staples
Barbara Stocking
George E. Williams

Instructor

Jerome Bieter
George Campbell
Edward J. Dvorak
Elbert E. Gilbertson
Iver Iversen
Rosemary Johnson
Clayton R. Lagerquist
Marian L. McReavy
Robert C. Michaels
Hugh D. Putnam
Gustav Scheffler
Lee D. Stauffer
Ralph O. Wollan
Paul Youngdahl

Lecturer

Robert N. Baar
Robert Bachmeyer
Henry Bauer
Betty Wells Bond
Frank Briggs
Jerome W. Brower
Byron Brown
F. Hazen Dick
Irene M. Donovan
Henry Erickson
Dean Fleming
Leslie Foker
Marie Ford
Russel Frazer
Margaret Gaddy
Orrin Govier
Jack Handy
Vivian Harriman
Evelyn Hartman
Heide Henricksen
Kenneth Holmquist
Alma Hovde
William Jordan
Helen J. Jurkovich
Helen L. Knudsen
Karl Lundberg
Robert G. Michaels
Lorena Murray
Russel Nye
Wilford Park
Telmer O. Peterson
Harvey Rogers
Abraham Rosenfield
John Shrouts
Elmer Slage
Lyle Smith
Ruth Stief
Raymond K. Swanson
Jane Taylor
Alberta Wilson
Victor Wilson
Frank Woodward

Research Fellow
Ernest Ager
Jaako Kihlberg
Myrtle Rueger
Orlando Rutschmeyer
Stanley Silberg

Teaching Assistant
Yick Kwong Chan
Robert A. Hiller
Kathleen M. Keenan
Curtis Meinert
Henry B. Tingey
Joseph Wagoner

Clinical Preceptor
J. Milo Anderson
Miriam Curtis
Marie Doud
Richard Fox
Frank Groner
Arthur Hennings
Lloyd Hughes
Merton E. Knisley
Carl C. Lamley
Benjamin Mandelstom
Harold Mickey
Russell Miller
Robert Malgren
Russell Nelson
David Olssen
Carl Platou
Boone Powell
Oliver Pratt
Glenn M. Reno
Donald F. Smith
William Wallace

LABORATORY OF PHYSIOLOGICAL HYGIENE

Ansel Keys,
Professor and Director

Professor
Josef Brozek
Francisco Grande
Ernst Simonson
Henry Taylor

Associate Professor
Joseph Anderson
Assistant Professor
Henry Blackburn
Instructor and Research

Associate
John Gilbertson
Research Associate
A. S. Dontas
Thomas Puchner
Robert Rotenberg

Teaching
Loring Rowell
Research Fellow
Mario Mancini
Myrtle Ruger

THE MEDICAL BULLETIN

SURGERY

Owen H. Wangenstein,
Professor and Chairman

DIVISION OF GENERAL SURGERY

Professor Emeritus

James A. Johnson
E. Mendelssohn Jones
Stanley R. Maxeiner, Sr.
Arthur A. Zierold
Harry B. Zimmermann

Professor

Donald J. Ferguson
Lyle J. Hay
C. Walton Lillehei
Richard L. Varco

Clinical Professor

Orwood J. Campbell
Thomas J. Kinsella
N. Logan Leven
Charles E. Rea

Associate Professor

Claude R. Hitchcock
Fletcher A. Miller
Bernard Zimmermann

Clinical Associate Professor

George S. Bergh
Tague C. Chisholm
Davitt A. Felder
L. Haynes Fowler
William A. Hanson
Victor Hauser
Earl C. Henrikson
N. Kenneth Jensen
Conrad I. Karleen
Arnold J. Kremen
Bernard G. Lannin
Frederick H. Owens
Edgar A. Regnier
Carl O. Rice
Willard D. White

Clinical Associate Professor

Emeritus

Martin A. Nordland

Assistant Professor

Joseph Aust
Samuel Hunter
William D. Kelly
Lloyd D. MacLean
Raymond Read
Yoshio Sako
W. Albert Sullivan, Jr.
Alan Thal
Benjamin R. Reiter

Clinical Assistant Professor

Stuart W. Arhelger
Samuel G. Balkin
Coleman J. Connolly
Leo C. Culligan
George D. Eitel
Joseph J. Garamella
William F. Hartfiel
Lawrence D. Hilger

Robert F. McGandy
Donald C. MacKinnon
Daniel J. Moos
Maynard C. Nelson
Nathan C. Plimpton, Jr.
Frank Quattlebaum
Walter R. Schmidt
Vernon D. Smith
Lyle Tongen
Robert W. Utendorfer

Instructor

Victor A. Gilbertsen
Edward W. Humphrey
John F. Perry
Herbert F. Warden

Clinical Instructor

John F. Alden
U. Schuyler Anderson
Frank S. Ankner
Ernest Berkas
Manuel R. Binder
Raymond E. Buirge
Merrill D. Chesler
Charles T. Eginton
Edward C. Emerson
LeRoy J. Fox
David Gavisier
John K. Grotting
Carter W. Howell
Frank E. Johnson
Clarence V. Kusz
Lawrence M. Larson
Louis C. Lick
Stanley R. Maxeiner, Jr.
Berton D. Mitchell
Aaron A. Papermaster
John R. Rosenow
Hanns Schwyzer
Horace G. Scott
Abbott Skinner
Bernard J. Spencer
Joseph L. Sprafka
William E. Stephens
Rolla I. Stewart
Jacob Strickler
John E. Twomey
Richard J. Webber
Darrell E. Westover

Clinical Assistant

Edwin G. Benjamin
Harold G. Benjamin
Frank J. Bonello
Robert P. Caron
Hamlin Mattson
Wallace I. Nelson

Research Assistant

Floyd W. Ayers

Resident in General Surgery

Karel Absolon
Norman B. Ackerman
Mohammad Ameli
Robert Ausman
John U. Bascom
Herman Bentz

Eugene Bernstein
Delmonte Bittencourt
John W. Bloemendaal
Andre Borkowsky
John Brainard
Warren Brooker
Gustavo Calderon
Aldo Castaneda
Demetria Chavez
John Condie
Norman W. Crisp
Anatolio Cruz, Jr.
Stacey Biswas Day
Richard A. DeWall
Raymond C. Doberneck
Frederick Drill
Richard Ernst
Behzaerd Fakhery
Harrison Farley
Farouk Fattah
William F. Feller
Orest Filipovich
Robert Flom
Henry Gans
George Garber
John Giebenhain
Stanley Goldberg
Paul Gonick
Bernard Goott
Vincent Gott
Theodor B. Grage
Ward O. Griffen
John A. Gronvall
Robert Gruys
John T. Harbaugh
Russell H. Harris
Herman Heupel
Paul C. Hodges
Dudley B. Houle
Alan C. Hymes
Kamil Imamoglu
Conrad B. Jensen
Gordon E. Johnson
Albert C. Kelly
Joseph Kiser
Jerry M. Knudsen
James B. Kramer
James W. LaFave
Donald Lamb
Young Kyoon Lee
Derwald Lepley
Richard Lillehei
Andre Lima
David M. Long
John B. Lundseth
Justol L. Mari, Jr.
Andre McClish
Arthur McFee
Donald McQuarrie
William Meeker, Jr.
Ramon Mendiola, Jr.
Donald C. Meredith
James W. Merritt
Flavio Morales

THE MEDICAL BULLETIN

Walter H. Moran
Joseph Moriarty
Albert Mowlem
Frederich J. Neher
Demetre M. Nicoloff
Jan Nowicki
Lloyd Olson
Reuben Oropeza
Theodore A. Peterson
Clifford H. Phibbs, Jr.
Alfred Pinard
Lumir Proshek
David Raab
Ralph Rayner
L. Stephen Richards
Harlan D. Root
Jerry Rosenberg
Peter A. Salmon
Stuart Scheiner
Ivan Schloff
Donald B. Shahon
Clarence Sherwood, Jr.
David L. Siegal
Allen Silbergleit
Charles Skemp
Alan Smith
Henry N. Smith
Laurence P. Sterns
Donovan Stiefel
Nelson H. Stone
Fouad Sukkar
Don Phillip Swensen
Tatsuo Tamiya
Maung Than
Neil Trotman
Robert Ad VanTyn
Angelo Ong Veloso
John Waldron
William Weathers
James E. White
Riley Woodson
William Woyda
Po Ya
Earl G. Yonehiro

DIVISION OF PROCTOLOGY
Clinical Professor Emeritus
Walter A. Fansler
Clinical Associate Professor
William C. Bernstein,
Director of Division
Clinical Assistant Professor
Howard M. Frykman
Harold Hullsiek
Charles A. Neumeister
Lloyd F. Sherman
Robert J. Tenner
Clinical Instructor
Loren E. Nelson
William T. Smith

DIVISION OF NEUROSURGERY
Professor
William T. Peyton,
Director of Division
Lyle A. French

Clinical Professor
Wallace P. Ritchie
Clinical Assistant Professor
Harold F. Buchstein
Leonard A. Titrud
Clinical Instructor
Paul S. Blake
Robert L. Merrick
Medical Fellow
Joseph Galicieh
Lucien Hodges
Jimmy Story
Richard Strassburger
Erich Wisiol
Max Zarling

DIVISION OF ORTHOPEDIC SURGERY
Professor Emeritus
Wallace H. Cole
Clinical Professor
Edward T. Evans
Harry B. Hall
John H. Moe
Clinical Associate Professor
Malvin Nydahl
Clinical Associate
Professor Emeritus
Carl C. Chatterton
Clinical Assistant Professor
Frank S. Babb
Lester W. Carlander
Walter Indeck
Richard H. Jones
Edward H. Kelly
Donald Lannin
D. Keith Millett
Harvey O'Phelan
Richard Reiley
Frederick G. Rosendahl
Kenath H. Sponsel

Instructor
Paul M. Arnesen
Clinical Instructor
John F. Beer
Wesley H. Burnham
Meyer Z. Goldner
Richard J. Johnson
Donovan L. McCain
Roland F. Neuman
Robert F. Premier
Medical Fellow
Gilbert Bacon
Kang Ok Cho
Richard D. Granquist
Bernard L. Kratochevil
Robert Leach
Robert Premier
David G. Skagerberg
Wayne Thompson

DIVISION OF UROLOGICAL SURGERY
Professor
Charles D. Creevy,
Director of Division

Clinical Professor
Frederick E. B. Foley
Clinical Associate Professor
Theodore H. Sweetser
Clinical Assistant Professor
Samuel S. Beirstein
Richard S. Rodgers
Baxter A. Smith
Edgar A. Webb

Instructor
Julian Ansell
Milton Reiser
Clinical Instructor
David M. Anderson
George L. Garske
Bruce Edgar Linderholm
Hugo E. Miller
William E. Price
Harold A. Reif
Edward J. Richardson
Ragnar T. Soderlind
Gordon W. Strom

Medical Fellow
Ronald Geist
Carlos Guzman
Roger Haglund
Ali Hakim
Gerald Litzy
Demetrio Potente
Manuel C. Salazar

UNIVERSITY HEALTH SERVICE

Ruth E. Boynton, Director
Donald W. Cowan,
Assistant Director

Full-Time Medical Staff
Murray Bates
Elaine M. Benthack
George Campbell
Joyce L. Funke
Orin C. Grube
Helen L. Haberer
Robert G. Hinckley
Bjarne Houkom
Philip W. Hursh
Phillip D. Kernan
H. Douglas Lamb
Myron G. Messenheimer
V. George Nagobads
Lydia I. Neibergs
Raymond L. Page
Benjamin R. Reiter
Stella H. Sikkema
Clifford E. Sisler
Hugh J. Thompson

Part-Time Medical Staff
Dorothy M. Bernstein
Mary P. Christensen
Henry W. Cohen
Helen P. Dahl
James C. Dahl
John E. Eichenlaub

THE MEDICAL BULLETIN

William R. Fifer
 Rollin M. Hansen
 William B. Hanson
 George W. Hauser
 Bruce W. Jarvis
 Irvine M. Karon
 Robert L. Koller
 Katherine K. Laine
 Donald R. Lannin
 Wendla E. Leinonen
 James H. Lyons
 C. A. McKinlay
 John E. Middlebrook
 J. Adelaide Moren
 Orville E. Ockuly
 Kurt Pollak
 Anatole Rabceovich
 R. L. Schmidtke
 John T. Smiley
 Robert J. Tenner
 Carol Snyder Tiffany
 Francis B. Tiffany
 C. Gordon Vaughn
 John P. Wendland
 Sabina S. Zimering

INTERNS Medicine

Beaty, Harry N.
 University of Washington
 Davidson, Colwell
 University of Minnesota
 Duncan, Donald A.
 Yale University
 Edwards, Gardner T., Jr.
 Medical College

Hall, Charles A., Jr.
 Yale University
 Hall, James W.
 Harvard Medical School
 Maldonado, Wilford E.
 University of Oklahoma
 Mielke, John E.
 University of Wisconsin
 Peter, James B.
 St. Louis University
 Seelinger, Donald F.
 University of Colorado
 Thompson, Charles E.
 University of Minnesota
 Trombold, John S.
 University of Kansas

Pediatrics

Amren, Don P.
 Yale University
 Carter, James P.
 Northwestern University
 Cohen, Matthew
 Tulane University
 Drage, Joseph S., Jr.
 University of Minnesota
 Fisch, Robert
 Medical University of
 Budapest
 Herdman, Roger Cole
 Yale University
 Lowman, James T.
 University of Arkansas
 Rallison, Marvin L.
 University of Utah

Spencer, Douglas M.
 University of Pennsylvania
 White, James G.
 University of Minnesota

Surgery

Blum, John A.
 New York University
 Christiansen, Thorvald W.
 College of Medical
 Evangelists
 Kane, William J.
 Columbia University
 Kaplan, Ronald F.
 University of Rochester
 Livingstone, John B.
 Harvard University
 McLaren, John J.
 Boston University
 Peter, Edward T.
 Medical College of
 Alabama
 Rippey, John H.
 University of Oregon
 Robison, James T.
 University of Texas
 Santoro, Benjamin T.
 Columbia University
 Trucker, Earl B.
 Harvard University
 Walder, Arnold L.
 State University of
 New York
 Wolfson, Sanford
 Harvard University
 Zanger, Louis C.
 University of California

WEEKLY CONFERENCES OF GENERAL INTEREST

Physicians Welcome

- Monday, 9:00 to 10:50 A.M. OBSTETRICS AND GYNECOLOGY
Old Nursery, Station 57
University Hospitals
- 12:30 to 1:30 P.M. PHYSIOLOGY-
PHYSIOLOGICAL CHEMISTRY
214 Millard Hall
- 4:00 to 6:00 P.M. ANESTHESIOLOGY
Classroom 100
Mayo Memorial
- Tuesday, 12:30 to 1:20 P.M. PATHOLOGY
104 Jackson Hall
- Thursday, 11:30 A.M. to 12:30 P.M. TUMOR
Todd Amphitheater
University Hospitals
- Friday, 7:45 to 9:00 A.M. PEDIATRICS
McQuarrie Pediatric Library,
1450 Mayo Memorial
- 8:00 to 10:00 A.M. NEUROLOGY
Station 50, University Hospitals
- 9:00 to 10:00 A.M. MEDICINE
Todd Amphitheater,
University Hospitals
- 1:30 to 2:30 P.M. DERMATOLOGY
Eustis Amphitheater
University Hospitals
- Saturday, 7:45 to 9:00 A.M. ORTHOPEDICS
Powell Hall Amphitheater
- 9:15 to 11:30 A.M. SURGERY
Todd Amphitheater,
University Hospitals

For detailed information concerning all conferences, seminars, and ward rounds at University Hospitals, Ancker Hospital, Minneapolis General Hospitals, and the Minneapolis Veterans Administration Hospital, write to the Editor of the BULLETIN, 1342 Mayo Memorial, University of Minnesota, Minneapolis 14, Minnesota.